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THE

FLORIST AND POMOLOGIST,

AND

SUBURBAN GARDENER:

A Pictorial Magazine of Horticulture,

AND

REGISTER OF GARDEN NOVELTIES.

EDITED BY

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CURATOR OF THE CHELSEA BOTANIC GARDEN; EDITOR OF "THOMPSON'S GARDENER'S ASSISTANT"; CO-EDITOR OF
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W.H. Fitch del.

Rose (H.P.) Merveille de Lyon

THE
FLORIST AND POMOLOGIST.

ROSE H. P. MERVEILLE DE LYON.

[PLATE 601.]

GONSIDERABLE attention was attracted to this new Rose, when exhibited in the early part of 1883; it was admitted to be very beautiful, but some doubt as to its permanency or distinctness seems to have been entertained. These however passed off, and on better acquaintance the Rose secured its admirers, and also the award of a First-class Certificate. It was exhibited in blossom both by Messrs. W. Paul & Son, and by Mr. C. Turner, and the accompanying figure was made from flowers contributed by the latter.

This variety, as Mr. Turner informs us, "was introduced by M. Pernet père of Lyons in the season 1882-3. It is supposed by English growers to be a sport from Baroness Rothschild, which it much resembles in habit, except that its growths are longer and not so stunted as in that variety. The flowers are nearly white, very large, moderately full, and considering

all its points it is a grand addition to the section of light-coloured Roses adapted for exhibition. It is unfortunately like its parent, Baroness Rothschild, scentless or nearly so."

M. Pernet considers it the most beautiful of the Roses obtained up to the present time. However that may be, it is no doubt an acquisition, and for the sake of having so near an approach to a large full H.P. Rose with pure white flowers we may well, though not indifferent to sweetness, somewhat abate our requirements in the matter of fragrance.

Our figure, a very faithful representation, shows it to be a Rose that will obtain many admirers. M. Pernet further states that it is vigorous in growth, with very strong thorns on the wood, and stout bright green foliage. The flowers, he says, are always solitary, but are freely renewed; they open well, and attain a diameter of four to five inches.—T. MOORE.

A CHAPTER ABOUT PEARS.

HE various Fruits we cultivate are all more or less influenced by the circumstances of soil, climate, rainfall, latitude, &c., &c., even on the limited area of these islands; and the more or the less in regard to fruit it is of consequence to know, especially by people who are about to plant. I have long felt that it is unfair to dogmatise on the subject of the relative merits of particular kinds of fruit, having seen that the difference of a few miles will often produce results in the character of a fruit of a most opposite description. Perhaps no fruit is more powerfully influenced by local circumstances than the Pear, and no fruit has caused more disappointment and trouble to gardeners.

An exchange of information concerning Pears may be of some little use to people disposed to plant fruit trees for market purposes, and to whom mistakes in the selection

of sorts would be disastrous; and by way of inaugurating a series of contributions* from your pomological correspondents, I send you some instances of my own successes and failures.

To those intent on raising new Pears I venture to suggest the desirability of securing fruit with the very valuable property of keeping after attaining ripeness. The story told me once by a nobleman illustrates the fugitive character in the ripeness of some of our best quality Pears. Lord S—, who was very fond of Pears, but was often just too soon or too late to catch the precise moment of perfect ripeness, desired his gardener to carefully note the ripening process of a particular Pear, and to let him know the very instant that took place, no matter at what hour. At four A.M. one morning his lordship was aroused

* These we shall be most glad to receive, and willing to publish.—ED.

by some very decided knocks at his door, and demanding in some alarm the cause of the unusual disturbance, received for answer, " My lord, the Pear is ripe." It is needless to say that the order in regard to Pears was considerably modified for the future. The Pears named below do not comprise the whole of my collection, but are fairly typical sorts. They are trained to walls on three aspects, south, east, and west, and are grown on prepared soil, but with a clay subsoil and in a clay district.

Doyenné d'Eté—small, sweet, juicy.

Citron des Carmes—useful in its period.

Jargonelle—good early Pear.

Poir Péche—early but not high in quality.

Williams' Bon Chrétien—good flavour, keeps badly.

Beurré d'Amanlis—large fine juicy Pear.

Beurré Superfin—very fine handsome Pear.

British Queen—quality of Marie Louise.

Louise Bonne of Jersey—juicy and good.

Beurré Hardy—fairly good.

Marie Louise d'Uccle—good.

Bergamotte d'Automne—rich fine flavour, but soon over.

Beurré d'Aremberg—juicy, prolific; keeps after ripening.

Beurré Easter—fine in quality and size.

Beurré de Rance—one of the best late Pears; keeps after ripening.

Olivier des Serres—very fine buttery Pear.

Knight's Monarch—excellent in every respect; the best.

Doyenné du Comice—excellent, but shy in bearing.

Doyenné Alençon—good keeping.

Doyenné Boussoch—large, handsome, brisk, juicy.

Glou Morceau—occasionally very good, but uncertain.

Joséphine de Malines—good in every respect.

Winter Nelis—very fine quality, but liable to canker.

Crassanne—good, and keeps well after ripening, but gritty.

Huyshe's Victoria—in good seasons fairly good.

I have included some early Pears which, on account of their precocity and that the continuity of supply from an early season may be preserved, should be grown, but they are not of high quality. Other early and newer sorts I have not sufficiently tested. I allude to the five first named.

Pears which have not succeeded with me:—

Beurré Bachelier—fails to bear.

Beurré Sterckmans—uneatable.

Chaumontel—uneatable.

Passe Colmar—inferior in size and quality.

Duchess d'Angoulême—large, but coarse and inferior.

Flemish Beauty—handsome, but inferior in quality.

Hacon's Incomparable—fails to ripen.

Gansel's Bergamot—generally excellent, but with me inferior.

Jean de Witte—not first rate.

Maréchal de la Cour—has never proved good.

Nouvelle Fulvie.

Beurré Duhaume—keeps well, but very inferior in quality.

Seckle—very high flavour, but often decays before ripening.

Délices de Hardenpont—only second quality.

Golden Russet.

The last-named Pear was raised by my father at Frogmore, and going through the fruit room with Mr. Powell I tasted this Pear, and thought at the time it surpassed any Pear I ever tasted; it had a very thin russetted skin, and was a refined example of Marie Louise. As soon as I obtained grafts I worked them on trees in different aspects, expecting great things, but although it has borne fairly well, I have never had a fruit fit to eat from it.

I could very much amplify the list of failures, but the above may serve to illustrate my argument, that Pears may be good in one locality, and very inferior in another. The incidence of heavy rainfall at a season when Pears are just finishing their growth, after perhaps a dry time, is very injurious, and has led me to think of keeping the rain from the roots of Pears at such seasons.—W. INGRAM,
Belvoir, 21st December, 1883.

THE BLUE SPRUCE FIR.

WITHOUT doubt this is the most beautiful of all the Firs. Its symmetrical habit of growth is most pleasing, its well-furnished spray is most faultless and felicitous in its disposition, and its well-marked coerulean hue is most enchanting. The *Abies magnifica* (*olim Picea*), another Fir with blue-green foliage, is stately in its aspect and manner of growth, and is certainly a very ornamental tree, but from its more massive character, its coarser style of development, and the more bulky expansive nature of its branches and foliage, it is wanting in the plumose gracefulness and ornate finish which

characterises the growth of the Blue Spruce. Thus the latter forms the handsomer object, and remains—at least while young—the premier amongst the ornamental firs.

This tree comes from the Rocky Mountain region of North-West America, and besides having been sent abroad under the erroneous names of *Picea Menziesii* (more correctly *P. sitchensis*), *P. Engelmanni* and *P. Engelmanni glauca*, has been also called *P. Parryana*.

the name of *Picea Engelmanni*. This is a mistake, which I have repeatedly met with. The Spruce in question is my *Picea pungens*, formerly referred to *P. Menziesii* (=*P. sitchensis*), of the Pacific coast. The true *P. Engelmanni* is a second distinct species of the same mountain region, but occupying higher elevations. It forms extensive forests at an altitude of from 9,000 to 11,500 feet up to the timber line, and a scrub above it. It has pubescent



PICEA PUNGENS, THE BLUE SPRUCE FIR.

Its true name, however, is *P. pungens*, and it is distinguished from *P. Menziesii* by its less flattened and more pungent leaves, and its longer cylindrical cones, which have undulate retuse scales, minute bracts, and larger broadly-winged seeds.

The Blue Spruce was named *Picea pungens* by Dr. Engelmann, who has corrected the foregoing errors in the following short note published in the *Gardeners' Chronicle* (n. s. xvii., 145) :—"I notice a reference to the beautiful Blue Spruce of the Rocky Mountains under

reddish branchlets, square leaves less sharply pointed, and small cones ; its light cinnamon-brown bark is thin and scaly, and the leaves of young seedlings are smooth-edged. *Picea pungens* has white glabrous branchlets, stouter, in old specimens somewhat flattened, spiny-pointed leaves, blue in young trees and in the young growth of old trees ; the cones are much longer and paler, the bark thick, crooked and greyish ; leaves of seedlings somewhat dentate. It never occurs in forests, but is scattered along the banks of mountain streams at

lower elevations than the other. Old trees become bare and quite unsightly, but the large pale cones in their tops are a very conspicuous feature."

Miss Bird (*Lady's Life in the Rocky Mountains*) calls the tree the Silver Spruce, and remarks that its shape and colour are both beautiful. "My heart," she says, "warms towards it, and I frequent all the places where I can find it. It looks as if a soft blue silver powder had fallen on its deep green needles, or as if a bluish hoar-frost, which must melt at noon, were resting upon it. Anyhow one can hardly believe that the beauty is permanent, and survives the summer heat and the winter cold."

The finest example of the Blue Spruce Fir growing in this country is, we believe, to be found in the Knap Hill Nursery. This plant was referred to by us in our volume for 1879 (p. 164) in the following terms : "One of the most interesting is the Blue Spruce of Colorado, *Abies Parryana*, or as it will probably have to be called *Picea Parryana*. This beautiful plant is very symmetrically branched and furnished with spreading needle-shaped leaves, so intensely glaucous as to impart to it a distinctly blue colour. It has been referred to *Abies Menziesii* and to *A. Engelmanni*, but we are much inclined to think it is distinct from either. Certainly, when regarded as an ornamental tree, the glaucous form must be set down as being by many points the best and handsomest of the Spruces. Many of the seedlings, however, come green, and the rest vary in the glaucous colouring," so that the finer selected densely glaucous plants become enhanced in value.

The Knap Hill plant is now of considerable size, and indeed might be taken as the original from which the accompanying illustration (from the *Gardeners' Chronicle*) was prepared. Our contemporary speaks of it as "one of the very handsomest, if not the handsomest of all the Spruces. The beautiful Blue Spruce of the Rocky Mountains never occurs in forests, but is scattered along the banks of mountain streams. When young, as all the plants in this country are necessarily, there is no more beautiful object for symmetry or colour. The true *P. Engelmanni* forms extensive forests at elevations of from 9,000 to 11,000 feet and upwards, and has pubescent, not glabrous,

branchlets, blunter leaves, cinnamon coloured, not greyish bark, and smaller cones. Messrs. Veitch speak of it in their *Manual* as the most ornamental of all the American Spruces; its remarkable colour and beautiful outline rendering it one of the best of Conifers for the lawn. We have now observed the tree growing in a variety of situations, and can fully confirm everything that has been put forth as to its singular beauty. The illustration was taken from a specimen growing in Professor Sargent's garden, at Brookline, which measures 16 feet 7 inches in height, and was raised from seed collected in Colorado by Dr. C. S. Parry in 1862.—T. MOORE.

COBÆA SCANDENS VARIEGATA.



NE of the handsomest examples of this climber that the lover of plants and flowers can see in a day's journey is to

be found in the outskirts of a village six miles from Glasgow, called Bailleston. It is the property of Mr. Robert Ward, of Cross-hill Cottage. This unpretending residence, Swiss cottage-like in its outlines, has attached to it quite a street of glass covering about 700 feet lengthways, and is made up of vineeries and peacheries, fern-house, ornamental plant houses, camellia-house, and corridors all on the most approved modern fashion, clean, neat, and as comfortable and cosy as the cottage itself and the happy fireside in connection with it.

Entering from the business room into a glass corridor about 80 feet long and 6 feet wide, the visitor gets embosomed among the handsome tendrilled branches of *Cobæa scandens variegata*. Planted against the house wall, it is trained along the roof on a neat wire trellis, and the branchlets hang down in the most captivating manner all along the corridor and into the gables of the camellia-house standing at right angles. It covers quite 80 yards lengthways, and if one was to measure its branches there are actually miles of it.

My object in noticing this plant is to show all who may have the fancy of covering, or rather festooning, in the best fashion similar places, that there are no cheaper or better-looking subjects than this for furnishing such a situation ; the large ovate-lanceolate leaves, green in the centre with irregular margining

of gold, lighten up a long corridor to great advantage, and are always clean-looking and beautiful. There is no filth generated, no insects to trouble the gardener, and the plant bears a little darkness better than most of its compeers in the climbing way. The glass used by Mr. Ward is ribbed, and 26 oz. to the foot. In summer the leaves don't get scorched by excessive sunlight, the minute corrugation and the dimming of the transparency being perfect antidotes to sunburn; and then in these dark leaden days, the plant with its beautiful garniture seems to bear the want of light which this season of the year always brings with it. The Camellias are not incommoded by it, only it is right to say that the festoons in that house are kept within limits—that is, that they hang down from the wall and gable-sides, and form a beautiful tracery as a background for the Camellias.

The fruits produced by a plant of such a size as the one in question are numerous, and highly ornamental too, hanging down, quite as large and better formed than any of our Passion-flower fruits, and springing from an ornamental-veined receptacle as flat as a saucer and a capital pattern for those that deal in the formation of those useful domestic articles.—
J. ANDERSON, Meadow Bank.

CATTLEYA SKINNERI.

THE well-known *Cattleya Skinneri* is best grown in a pot or basket, with good fibrous peat and sphagnum moss, the pots being filled three-parts full of drainage, and then filled up with rough peat, placing some pieces of charcoal amongst it to keep it open and porous—for the roots will run freely among the charcoal. In the growing season the soil requires to be kept rather moist, but the plant does not like too much water about its roots at any time. It is best to be grown near the light, with a little shade when the sun is hot, the shading not being required at any other time. We find the warm end of the Cattleya house to suit it, as it requires more warmth than some of the other Cattleyas. When the growth is finished in autumn very little water should be given, and during winter only just sufficient must be allowed to keep the stems plump, until they begin to throw up their flower spikes in March, when a little

more may be supplied to assist the flowers in opening and to secure finer blossoms.

The plants begin to grow after their flowering season is over, which is the best time for division if it is required. It is, however, best to avoid cutting the plants as much as possible, as sometimes the divided pieces will not succeed well, especially if the plant is not strong and vigorous. When divided, place them in a shady, moist place until they get established, after which they may be removed to a position more freely exposed to the light.—B. S. WILLIAMS, Victoria Nursery, Holloway.

ROSES IN THE NORTH, 1883.

THE past summer and autumn have been exceptionally well suited for Rose growing in the open air in this northern part of the kingdom, and the large fine and healthy foliage has maintained its vigour throughout. The larva of the sawfly, which eats the leaf-surface, and gives the whole plant an unsightly appearance, in addition to weakening growth, was only seen on two or three plants. Mildew, a common parasite on the Rose family, has also been little seen. But the most remarkable feature in this year's growth was the almost entire absence of the common aphis or green blight, not only from the Rose section of plants, but also from the Plums, both on walls and standards and from other sorts of trees usually affected. It is not easy to account for this through any striking difference of weather during early growth in the spring months, unless it was from the effects of the severe storm of frost and snow, which lasted here without intermission from March 5 to March 31. The last two or three days of February and the first four in March were unnaturally warm for the period, the thermometer in the shade reaching to 61·2 degrees. This high temperature may have stimulated the embryos of these little pests into active life, while the protracted cold above mentioned may have checked their further development and proved the gardener's friend, as it manifestly was in the case of retarding fruit-tree blossoms. Such is my theory to account for the clean bill of health in the gardens here. No such severity of weather has occurred in Britain during the same months since the year 1854.

I may here mention that from being a great admirer of sweet-scented, and what are commonly termed old-fashioned flowers, I retain a number of sorts not now seen such as Rose du Roi or Lee's Perpetual; the Red and the Blush-coloured Quatre Saisons, the first of the Perpetual class introduced, only semi-double, but very sweet-scented; the semi-double Red Cabbage or Provence Rose, with the White, the Common Double White, and the small variety called Spong, which latter was the principal variety in use for early forced Roses before Perpetuals were introduced. York and Lancaster has also a place amongst old favourites, while the old Common China is grown in numerous beds, and is still (December 18) blooming freely. The weather until now has kept open, and there are numbers of Perpetuals still flowering, while Mignonette and many sorts of Annuals are quite fresh and gay.—JOHN WEBSTER, *Gordon Castle Gardens.*

CYPRIPEDIUM SEDENI AND ITS OFFSPRING.

SOME very handsome hybrid Cypripediums were exhibited in flower at the Royal Horticultural Society's floral meeting on December 11. Those particularly alluded to were three allied forms which have sprung from *C. Sedeni*, and which though sufficiently distinct from each other, have a striking family resemblance which is the more apparent from their similarity of colour—white more or less flushed with a purplish tint of bright rose. Mr. O'Brien has made (*Gard. Chron.*, n. s., xx., 754) some observations on these plants, which we gladly transfer to our pages:—

"The handsome varieties exhibited by Messrs. Veitch, augmented by the noble flowers of *C. Schröderæ* shown by Mr. Ballantyne, gr. to Baron Schröder, The Dell, Egham, at the Royal Horticultural Society's meeting, and in all of which *C. Sedeni* had formed one of the parents, served to illustrate the importance and happy character of that cross. *C. Sedeni* was raised at Messrs. Veitch's nursery by crossing *C. Schlimii* with *C. longifolium*, and vice versa, the result in each case being much the same—a circumstance which has generally been found to hold good in

intercrossing this section of *Cypripedium*—no matter which the seed-bearing parent may be, the result in the offspring is a strictly intermediate form. Before the advent of *C. Sedeni* the delicate but beautiful and distinct *C. Schlimii* was much sought after, but in *C. Sedeni* all the coveted beauty was found to be increased, its colour intensified, its size enlarged, its floriferousness increased tenfold, and added to all, a rudely robust constitution imparted; it is not therefore to be wondered at that to all who desire a lovely, easily cultivated plant, the possession of *C. Schlimii* should be of little consequence when they can easily obtain and grow its more sturdy offspring. When we call to mind the many huge specimens of *C. Sedeni*, with their hundreds of elegant rose-coloured flowers, which seem to be perpetually blooming in our Orchid collections, we cannot wonder at its being such a general favourite; nevertheless, all due consideration should be given to the meek-looking little *C. Schlimii*, not only on account of its own beauty, but for the important part it has played in giving us a new and beautiful race. With respect to the other parent of *C. Sedeni* (*C. longifolium*), it had vigour, a floriferous habit, and good substance, but its pale green, purple-tinged flowers wanted colour, and that *C. Schlimii* supplied as well as assisting in modifying its angular form, and hence the happy combination. The interest in examining the specimens exhibited was much increased by the forethought of Messrs. Veitch, who also exhibited *C. Schlimii* in bloom, and flowers of *C. longifolium*.

"*C. cardinale* (*C. Sedeni* crossed with *C. Schlimii album*) may be likened to a gigantic very highly coloured *C. Schlimii*, it being rounder in all its parts than *C. Sedeni*, and having the patches of rose-coloured hair-like protuberances on the petals near the column much more clearly defined than in that variety. There is a brightness in the rosy tint of *C. cardinale*, particularly on the pouch-like label-lum, which makes it very attractive.

"*C. calurum* (*C. longifolium* crossed with *C. Sedeni*) is a noble plant, apparently as strong growing and free-flowering as *C. longifolium*, and having large wax-like flowers, the petals of which are quaintly elongated and curled. The upper and lower sepals are



JL Macfarlane del.

Raspberry Lord Beaconsfield.

greenish-white veined with rose, and the petals and labellum are rose beautifully tinged over with brown. The inside of the pouch—a study in itself—is cream-coloured spotted with purplish-rose. These two grand things are among the best of the beautiful hybrids raised at Chelsea.

"The flowers of *C. Schröderæ* (*C. caudatum* crossed with *C. Sedeni*), brought by Mr. Ballantyne, prove it to be a strikingly beautiful plant. In general appearance the flowers are like a large *C. Sedeni* with the petals much more elongated; in fact, they are just what might be expected from the introduction of the influence of the long tails of *C. caudatum*

on *C. Sedeni*. The top and bottom sepals are cream-coloured, veined and lined with rosy-brown, the bottom one being round. The petals are purplish-rose, and the lip purplish-rose outside, pale sulphur blotched with brownish-rose inside, the entire length of the flower being about 7 inches—a noble variety indeed. The plant is of Veitchian origin, and was described in the *Gardeners' Chronicle* (xix., 432). There are yet other varieties in which *C. Sedeni* has been a parent, and which will, no doubt, turn out well. It is perhaps needless to say that all have the plain green leaves of their (*the Selenipedium*) section."—
JAMES O'BRIEN.

RASPBERRY LORD BEACONSFIELD.

[PLATE 602.]

NEW Raspberries are not very numerous, but the variety figured in the accompanying plate appears to be of a distinct character, and was thought worthy of a 1st-class Certificate when submitted during the last summer to the Fruit Committee of the Royal Horticultural Society. It was exhibited by Mr. A. Faulkner, of Inkpen, near Hungerford, and was a chance seedling produced in his garden in 1876. This plant was observed to be vigorous in growth, although the soil in which it was grown was not rich, but of a sandy nature; it also proved to be a very heavy cropper, continuing in a fruit-bearing condition for a long period

during the season, so that it was taken in hand, increased, and in due time exhibited with the result noted above.

The canes of this Raspberry, as we learn from Mr. Faulkner, are stout with a clear smooth nut-brown skin, and reach to the height of nine feet or more, in the sandy soil of his garden. The leaflets are large and pointed, and of a silvery hue beneath. The fruit is produced freely in the axils of the leaves, on the summer branches, and is large, roundish or slightly conical, and of a deep crimson colour. The variety is a summer bearer, continuing to produce and ripen its fruit for a considerable period in succession.—T. M.

REGISTER OF NOVELTIES.

NEW PLANTS.

ADIANTUM WEIGANDII, *T. Moore* (*Gard. Chron.*, N.S., xx. 748).—A very distinct and pretty addition to the many ornamental forms of Maidenhair Fern now in cultivation. It has something the aspect of *A. decorum*, having like it triangular tripinnate glabrous fronds, of a foot or so in height, and forming a neat tufted mass. The stalks of both pinnae and pinnules are long, which gives the centre of the frond an open appearance, while the apical parts of fronds and pinnae are crowded. The pinnules are ovate from a broad base, freely and conspicuously lobate at the edge, and yet appearing little divided by reason of the narrow sinuses; the sori are large, numerous, nearly circular, one or two being produced on each of the lobes. Introduced from America (gardens?); Messrs. Veitch & Sons.

ALLIUM OVIFLORUM, *Regel* (*Gartenfl.*, t. 1134).—A rather pretty and interesting hardy perennial, with short bulbous stems producing the fibrous roots from their base, and from their apex the sub-biseriate lax carinate glabrous leaves; the scape is acutely 4—6 angled, and bears a lux roundish umbel of nodding flowers of a deep violet purple colour, and an ovato-conical form, the sepals being

connivent. Native of India in the Chumbi valley, between Thibet and Sikkim; H. J. Elwes, Esq.

CARAGUATA SANGUINEA, *E. André* (*Rev. Hort.*, 1883, 468, with tab.; *Gard. Chron.*, N.S., xx., 716, fig. 127).—A fine Bromeliad of epiphytic habit, dwarf growing, with a dense rosulate tuft of numerous oblong-lanceolate leaves, which are recurved, plane, dilated and sheathing at the base, acuminate at the apex, and of a deep green colour, the two or three rows nearest the centre being of a deep blood red, when mature, shading off to orange; the small yellowish flowers bordered with white are nestled down in the heart of the plant, and are not apparent unless specially looked for. Received a first prize medal from the Société Nationale d'Horticulture de France. It was discovered by M. André on the Western Cordillera of the Andes of New Grenada; M. G. Bruant, Poitiers.

CYATHEA MICROPHYLLA, *Mettenius* (*Hook. 2nd Cent. Ferns*, t. 99).—A charming little tree fern, with a caudex which attains four feet in height. The fronds are 2—3 feet long, ovate, tripinnate, with the pinnules very small and neat, ovate-oblong, deeply pinnatifid, the lobes oblong, obtuse entire, with a single vein in each. The sinus is solitary at the base

of the veinlets. It is a remarkable fern with very compound fronds, and the smallest pinnules of any Cyathea yet known. 1st-class Certificate R.H.S., Dec. 11. The young plant exhibited had scarcely acquired the true tree-like habit, the stem being ascending rather than erect. Andes of Peru; Veitch & Sons.

CYPRIPEDIUM SCHRÖDERÆ, Hort. Veitch: Rchb.f. (*Gard. Chron.*, n. s., xix., 432).—A very fine hybrid raised between *C. Sedeni* and *C. caudatum*. The flowers are large on a stout densely pubescent scape furnished with large compressed bracts. The downy sepals are flushed with rose and faintly veined with olive green, the petals are 4 inches long and half an inch broad at the base, purplish-rose deeper outside, with dark purple hairs inside near the base, the lip is large oblong obtuse, nearly 2 inches long, deep purplish-rose, the large opening with broadly infolded creamy white edges spotted with brown, the inside of the pouch spotted with rose; it is a singular and very beautiful plant; 1st-class Certificate R.H.S., Dec. 11. Raised by Mr. Seden in the nursery of Messrs. Veitch & Sons.

ECHEVERIA METALLICA DECORA, Rodigas (*L' Illust. Hort.*, t. 505).—A very beautiful variety of the well-known *E. metallica*, and like it no doubt suitable either for pot culture in the greenhouse or drawing-room, or for planting out in the summer parterre. The leaves have a foundation of the greenish hue strongly flushed with purple, and having the surface densely glaucous, which marks the type, but in addition they are variously striped longitudinally by bands of rosy-pink and creamy white, producing on well-marked examples a charmingly soft and pleasing variegation. Obtained by M. Dubergne et fils, Cumbrai; Compagnie Cont. d'Horticulture.

EREMURUS ROBUSTUS, Regel (*Bot. Mag.*, t. 6726).—A noble-habited Liliaceous plant, of the Asphodel tribe, having a rosulate tuft of numerous ensiform glabrous dark green leaves, and a central flower-stalk 2–3 feet high, supporting a raceme 2–3 feet long of numerous hexapetalous flowers described as being of a bright pink, but represented as a dull pale red with a brownish central rib to each segment. Dry regions of Central Asia; Prof. M. Foster.

ILEX AQUIFOLIUM LAURIFOLIA AUREA MARGINATA, Hort.—A very desirable and interesting hardy evergreen shrub, belonging to the Laurifolia type of varieties, that is, those in which the spines of the leaf margins are nearly or sometimes quite obliterated; in the present case the leaves are very sparingly toothed, the centre part being of a dark bronzy green, and the margins golden yellow. 1st-class Certificate R.H.S., Dec. 11; A. Waterer.

TAPEINOTES CAROLINÆ MAJOR, Rodigas (*L' Illust. Hort.*, t. 507).—A grand Gesneriad of erect growth, with deep red stoutish stems and crowded leaves, some 6–8 inches long, with a bullate surface of an oblong or oblong-lanceolate figure, and of a rich velvety shaded shining green on the upper and deep purplish-red on the lower surface; in the axils are produced the clusters of several solitary flowers which have red pedicels, a leafy red-tipped green calyx, and a large white deflexed much inflated corolla, with a contracted mouth and hairy surface. The species comes originally from Mexico, but this grand variety was obtained by M. de Macedo Costa, of Bahia, probably from seed of the original type, and has been acquired by the Comp. Cont. d'Horticulture.

NEW FLOWERS.

ABUTILON THOMPSONI PLENUM.—A true double variety, with the handsomely variegated foliage of the type, but with perfectly double flowers, resembling those of a Hollyhock; colour rich deep orange shaded and streaked with crimson; a decided novelty; Peter Henderson & Co., New York.

CARNATION (*Winter flowering*), Mrs. Keen.—A very dark variety, maroon brightened with crimson; large full and finely formed flowers, and as shown, somewhat tall in growth; 1st-class Certificate R.H.S., Dec. 11; Veitch & Sons.

FEVERFEW, Little Gem.—A very dwarf double variety, from eight to twelve inches in height, the flower-heads large of perfect form, and pure white in colour, very free, and excellent for pot culture; Peter Henderson & Co., New York.

PANSIES (*Show*).—*Claribel*, white ground, rich violet blue belting, dark blotch; extra fine. *James Lamb*, a rich dark self of extra fine form. *Prince Leopold*, very dark purple self; fine form and substance. *Prince Teck*, white ground, fine violet purple belting, dense blotch. *Sunbeam*, yellow ground, with a fine rich purple belting; extra fine quality. *Sultan*, yellow ground, fine purple belting; a grand show flower. All from Messrs. R. B. Laird & Sons, Edinburgh.

PANSIES (*Fancy*).—*George Ross*, dark maroon blotch, broadly edged with yellow, upper petals purple; extra fine. *Jessie Buddie*, crimson black blotch edged with yellow; extra fine. *John Simpson*, white, dark velvet blotch; fine form. *Miss Ivory*, fine creamy-white, velvet blotch; extra fine. *Mr. George Murray*, purplish-crimson blotches edged yellow, upper petals rosy-crimson, edged with white; very fine. *Mr. J. W. Bennett*, chocolate blotches margined with light chocolate and yellow, upper petals yellow and violet-purple, edged with white. *Hon. Mrs. Baillie Hamilton*, purplish-chocolate edged yellow, upper petals yellow edged bronzy-chocolate. *William Bennett*, dark maroon-blots pitted with crimson and edged with white; upper petals crimson. *William Dean*, black velvety blots, edged yellow; upper petals violet-purple, edged yellow; 1st-class Certificate, Edinburgh. The foregoing are announced by Messrs. R. B. Laird & Sons, Edinburgh.

PELARGONIUMS (*Zonal*).—*Erl King*, an excellent double-flowered variety of a warm orange-salmon hue, fairly double, good trusses, very free, and excellent habit, promising to make an excellent market and decorative variety; 1st-class Certificate R.H.S., Dec. 11. *Rowsham Model*, a very finely formed bright deep cerise-coloured variety; a capital exhibition variety, good habit and free; G. King.

The following are Messrs J. R. Pearson & Son's new varieties for the coming year:—*Aline*, white, stout, very fine. *James Douglas*, dark crimson, distinct, very fine form. *Lord Chesterfield*, magenta, fine in colour. *Mr. Holford*, salmon, extra fine pip. *Lady Chesterfield*, salmon suffused with orange, novel and distinct. *Mrs. Norris*, scarlet, white eye, extra fine. *Plutarch*, bright scarlet, bold white eye, very fine pip. *Caroline*, crimson-scarlet, bold white eye. *Tristan*, shaded scarlet, white eye, very fine. *Ajax*, vermillion, rich in colour, very effective. *Mrs. Johnson*, deep pinkish rose, a good addition to this class. *Norah*, salmon, suffused with pink, very pleasing.

PRIMULA SINENSIS FIMBRIATA.—*Swanley Purple*, a very fine rich shaded red heavily dashed with purple, large bold pip, fine truss, and excellent habit; early and very free. *Queen of Whites*, a singularly pure white variety allied to dark fern-leaved foliage, flowers large, stout, and finely formed, without a trace of blush on them; a novelty of high merit; 1st-class Certificate R.H.S., Dec. 11; H. Cannell & Son. The same exhibitors also had the following new varieties:—*Princess of Wales*, a very pretty pink, with pale rose on the edges; very pleasing and free, and a charming decorative variety. *Swanley Giant*, a very large pale rosy purple variety, fine in all its parts, though perhaps too pale in tint to be regarded as effective at this season of the year. *The Queen*, delicate blush, deeper in tint toward the

edges, very pretty, fine pip, but decidedly rough as shown. *Swanley Carminata*, a very good carmine salmon variety, of a tint of colour that requires strengthening, fine pip and truss. *Princess Beatrice*, pale pinkish rose, margined with white, pleasing and rather novel.—*Julia Lee*, a ruby coloured variety, which blooms freely, and has short stems, with fine pip and truss, but rough and fleeting in colour as shown; 1st-class Certificate R.H.S.; C. Lec & Son.—*Princess Beatrice*, a very novel and pleasing lilac-coloured variety, fine pip, handsomely fimbriated, good habit. *Snowdrift*, a singularly pure variety, quite snow white, and continuing so throughout, very early, fine trusses, and very free; a charming novelty; both these from Sutton & Sons.

ROSE (*Tea-scented*), *Sunset*.—A sport from *Perle des Jardins*. The flower, instead of being canary yellow, is of a rich shade of saffron and orange, similar to, but deeper than the colouring of *Safrano*; Peter Henderson & Co., New York.

VIOLAS.—*Columbine*, white, with broad margin of rosy lilac, a charming novelty; *Evening Star*, rich rosy purple, upper petals lilac; *Harlequin*, lower petals fine rich purple; upper petals pure white; extra fine; *Lady Abercromby*, white, fine bold flowers and very free; *Lothair*, fine rich crimson, distinct and very effective; *Northern Light*, light lilac, free bloomer, and distinct; and *Pantaloona*, fine rich purple, the upper petals marbled with white, extra fine. The foregoing are new varieties announced by Messrs. R. B. Laird & Sons, Edinburgh.

MYOSOTIS, sylvatica compacta aurea.—The merit of the old Cliveden Blue Forget-me-not, particularly as a spring bedding plant, is universally recognised. This is a new golden leaved variety of that plant; the flowers are of the same clear bright blue as its prototype, and their contrast to the golden yellow of the foliage is one of its chief merits. As its name implies it is of peculiarly dwarf, compact habit, and as a spring bedder it is destined to occupy a most conspicuous place; Hurst & Son.

SWEET PEA, Princess Beatrice.—A novel and charming variety, the flowers of which are of a rich and beautiful carmine rose colour, slightly shaded with lighter and darker tints, entirely distinct from any other kind; they are of remarkable substance, similar in this respect to *Violet Queen*, but the plant has a much more robust and free blooming habit than the latter; it is perfectly constant, and the perfume is remarkably sweet, more so than in any other sort; 1st-class Certificate R.H.S., Aug. 14, 1883; confirmed when examined as growing at Chiswick; Hurst & Son.

NEW VEGETABLES.

POTATO, Beauty of the West, a round white variety, marked with pale purple round the eyes; something in the way of Scammell's Glory but rounder; an excellent cropper and very fine table quality; 1st-class Certificate, Devizes, Nov. 1883. *Purple King*, a round variety with a pale skin, but tinted nearly all over with deep purple, very handsome, a great cropper, and excellent table quality. *Wiltshire Giant*, a fine looking deep red kidney, distinct in character, wonderfully prolific, excellent table quality; good for garden or field culture.—James Lye.

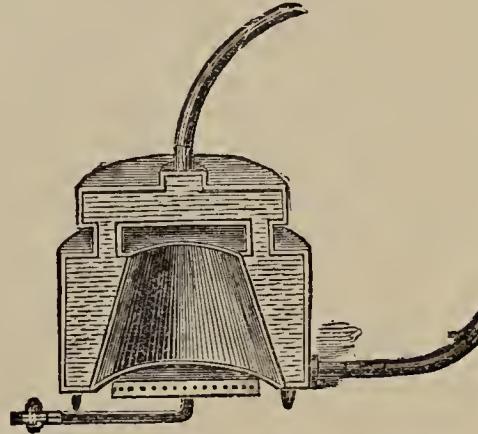
PEA, Bliss's Abundance, a dwarf variety obtained from the same cross as American Wonder, 15 to 18 inches in height; a second early, ripening immediately after the earliest kinds, very branching so that the seeds should be sown six inches apart in lines; Howcroft & Watkins.

PEA, Duke of Albany (Abbott's).—This Pea has proved to be one of the finest yet introduced either for exhibition or for the table, and unequalled as a

main crop wrinkled variety. It is very productive, bearing a profusion of extra large well filled pods in pairs, each containing from 9 to 12 fine peas, and being of a dark green colour are very handsome; the flavour and quality are also excellent; it grows about 5 feet high, is of a vigorous and branching habit, podding freely from the ground upwards, and should therefore be sown thinly; Hurst & Son.

NEW GARDEN APPLIANCES.

Among the contrivances for HEATING SMALL CONSERVATORIES those in which Gas or Oil respectively are used are the most economical and convenient; and when the apparatus is so arranged or constructed that the plants are preserved from the fumes of the burning medium, they are thoroughly effective up to the limit of their heating power. In the case of Gas, for example, any contrivance for holding and circulating the hot water, which should always be used as the distributor of the heat, and for bringing the flame of the Gas to act upon the water will serve the purpose, but it is convenient to be able to procure a small boiler designed for the purpose, such as POORE & Co.'s PATENT CONSERVATORY BOILER, which is of reasonable cost, and can be fitted inside the building, the gas burner being reached from a furnace door opening from the outside. Its form will be seen from the accompanying figure.



Another of those contrivances is the CHALLENGE HOT-WATER APPARATUS; this latter is intended to be heated either with Oil or Gas, and consists of a strong wrought zinc coil, the two ends of which are left open at top for the supply of water, and two caps are provided to prevent dirt, &c., from entering the coil. The boiler is made of strong copper; the flame is entirely surrounded with water, and the heat as it escapes strikes the dome at top. The container holds about one quart, sufficient to keep alight for twelve hours without attention. The gas boiler is fitted with a No. 4 fish tail, burning four feet of Gas per hour, and the top is fitted with a smoke pipe to carry off the non-consumed products of combustion. It can be placed in any position either outside or inside the house, and the pipes carried to the coil, or the coil could be replaced by pipes run round the house.

NEW PUBLICATIONS.

The BOTANICAL MAGAZINE for December, worthily dedicated to Herr Max Leichtlin, figures the following subjects:—*Eremurus robustus*, Regel [t. 6726], noticed ante p. 10.—*Gentiana Moorcroftiana*, Wallich [t. 6727], an annual species allied to our native *G. campestris*, 4—10 inches high, with erect slender stems branched at the base, sessile oblong leaves, and solitary or cymose funnel-shaped pale blue flowers; W. Himalaya; H. J. Elwes.—*Aërides Emericii*, Rchb. f. [t. 6728], a neat and pretty epiphyte, with a short erect stem, distichous leathery elongate loriciform leaves which are deeply but unequally bifid at the point, and axillary drooping

racemes of small flowers, which have incurved segments and a conspicuously incurved spur, and are of a pale pink with darker tips, the pedicels being of the same colour, and the rachis viscid; Andaman Islands; Lieut.-Col. Berkeley.—*Papaver Hookeri*, Baker [t. 6729], a showy branching annual 3—4 feet high, hairy, with lanceolate or ovate bipinnatifid leaves, and large single flowers varying from bright rose to pale crimson with a white or black spot at the base of the petals; much like *P. Rhoeas* but said to be larger; Indian Gardens, Kew.—*Medinilla Curtissii*, Hook. fil. [t. 6730], a pretty free-flowering stove shrub, with slender cylindric branches, sessile oblong or ovate-oblong three-nerved leaves with a scarlet costa and margin, and nodding cymes of small white flowers which contrast with the coralline peduncle rachis and pedicels, and the purple anthers; W. Sumatra; Veitch & Sons.

GARTENFLORA (Oct.—Nov.) figures *Priva laevis*, Juss. [t. 1131], a Chilean Verbenaceous plant, 1—1½ ft. high, with toothed leaves, and long spikes of lilac flowers; introduced by Messrs. Haage & Schmidt.—*Stenanthium occidentale*, As. a Gray [t. 1132, fig. 1], a slender bulbous plant, with linear leaves and small greenish purple flowers.—*Primula longiscapa*, Ledeb. [t. 1132, fig. 2], a Primrose with spathulate leaves, and small rosy-red flowers on long scapes; Altai; St. Petersburgh Bot. Gard.—Tab. 1133 is a view of an English Rock Garden.—*Allium oviflorum*, Regel [t. 1134], a pretty species of Allium with short ebulbous stems from which the roots are produced, flaccid linear carinate glabrous leaves and nodding umbels of deep violet purple flowers; Sikkim; H. J. Elwes, Esq.; see p. 9.—*Passiflora rubra*, Lin. [t. 1135, fig. 1—2], a W. Indian species with bilobed leaves and small pale red narrow petalled flowers.—*Linaria pilosalon gicalcarata*, Regel [t. 1135, fig. 3], a dwarf herbaceous perennial adapted for sheltered rockeries; from Sicily and South Italy; it has something the aspect of a dwarfed and hairy *L. Cymbalaria*, and is grown by Messrs. Backhouse & Son as *L. Cymbalaria maxima*; the stems are abbreviated, the leaves roundish angulately toothed, the flowers lilac with a pale yellow palate, and remarkable for their long spur.—*Phalaenopsis Stuartiana*, Rchb. f. [t. 1136], a copy of the woodcut figure in the *Gardeners' Chronicle* of this fine new species, with rosy-lilac flowers, allied to *P. Schilleriana*, and now pretty well known in gardens.

GARTEN-ZEITUNG (Nov.—Dec) contains figures of *Ornithogalum arabicum* L., a pretty white-flowered bulb, the Caruelia arabica of Parlatore, a showy species with white flowers set off by the blackish-green germs in their centre. These flowers the *Botanical Magazine*, t. 728, tells us are very difficult to obtain after the first season of growth in this country. The plate in the December number represents foliage of four variegated forms of Maples, named respectively, *Acer Pseudo-Platanus fol. atropurpureis*, *A. P. fol. purpureis Prinz Handjery*, *A. dasycarpum pulverulentum*, *A. d. fol. albo-variegatis*, and *A. d. lutescens*.

L'ILLUSTRATION HORTICOLE (11—12 liv.) figures *Codiaeum (Croton) Van Oosterzeei*, Rodigas [t. 502], a small growing narrow-leaved variety, with linear lanceolate acuminate leaves 3—4 inches long, of a bright dark green above, pale beneath, with a row of unequal-sized mostly oblong yellow blotches on each side between the midrib and margin; Botanic Garden, Batavia; Comp. Cont. d'Hort.—*Fuchsias* [t. 503], 1 Fritz, short-tubed double dark; 2 Mathilde, single striped-purple corolla; 3 Juliet, long-tubed double purple; raised by M. Malon; Comp. Cont. d'Hort.—Plate [t. 504] represents a park-keeper's residence on the estate of M. Montagut of Antonne, from a design by M. Henri Lusseau.—*Echeveria metallica decora*, Rodigas [t. 505], a charming variety

of this very effective succulent greenhouse or half-hardy perennial, in which the leaves are freely striped with rose-colour and creamy white on the soft glaucous and iridescent purple ground colour. Obtained by M. Dubergue et fil; Comp. Cont. d'Hort; see p. 10.—*Tapeinotes Carolinæ major*, Rodigas [t. 506], a very fine Gesneriad differing from the type in the larger size of all its parts. It is of sub-shrubby habit, with oblong-lanceolate velvety green leaves, and axillary clusters of ventricose white flowers. M. de Costa, of Bahia; Comp. Cont. d'Hort; see p. 10.—*Batatas paniculata*, Choisy [t. 507], a fine hothouse climber, with thick fleshy roots, smooth stems climbing to a considerable length, large palmate leaves, and panicles of handsome rosy-pink flowers very freely produced; India and South America.

JOURNAL DES ROSES (Nov.—Dec.) contains coloured figures of *H.P. Rose Secrétaire J. Nicolas*, a fine crimson variety raised by M. Joseph Schwartz, of Lyons, and recently sent out by him; and the *Tea Rose Jean Pernet*. The former is of vigorous growth, with good foliage, and globular-cupped flowers consisting of imbricated concave petals of a fine deep red with velvety purple reflections, the reverse being of a pale amaranth; and when exhibited last year before the Association Horticole Lyonnaise, and the Société d'Horticulture Pratique du Rhône, it was awarded a prize of the first class. The latter is an outcome of *R. devoniensis*, obtained in 1865 by M. Pernet père, and sent out by him in 1867; it is more vigorous than its parent, and has stout straight thorns, deep green leaves, and middle-sized or large flowers of a fine lively yellow.

BULLETIN D'ARBORICULTURE, &c., for Nov. contains a coloured representation of the *Apple Barthélémy du Mortier*, which is said to be one of the best of the Belgian sorts, and which was exhibited by the raiser M. Van Wassenhove, in 1872, before the Société Royal d'Horticulture de Tournai, when a silver medal was awarded to it by the jury, which award was ratified subsequently by the Society itself. The fruit is large roundish, somewhat narrowed to the apex, and is of a fine golden yellow, freckled with fiery red which gives it a very handsome appearance; and the flesh is fine, solid, sugary, and having an aroma resembling that of the Calvilles. As to its season, M. Pyche, a distinguished pomological amateur, says, it is good in September, better near the end of the year, and may be kept till April.—The Dec. number has a plate of the *Pear Triomphe de Tournai*, a variety raised from seeds by M. Darrus de Naghin; this having been tested on March 28, 1882, and March 6, 1883, was awarded a medal by the Société d'Horticulture de Tournai, for exceptional merit. The fruit resembles in form that of Bon Chrétien d'hiver, that is oblong-pyriform, yellowish at maturity, finely marbled netted and dotted with light brown; the stalk long, the eye half-closed, and the flesh yellowish-white, firm, buttery, very juicy, sugary and perfumed.

REVUE DE L'HORTICULTURE BELGE, &c. (Nov.—Dec.), contains:—A plate of the fine new *Begonia oblia*, recently imported from Brazil by M. Ed. Pynært-Van Geert, a tufted plant, with short erect stems, obliquely-ovate deeply lobed leaves, the under side of which is of a deep blood-red, and the upper side rich dark green freely marked throughout with small silvery spots; the flowers are white, and grow in small clusters from the leaf axils.—The December number gives a fine coloured figure of *Laelia majalis*, a well-known species introduced nearly half a century ago.

The GARDENERS' CHRONICLE (Nov. 24—Dec. 15) contains notes of the following novelties:—*Zygopetalum Burkei*, Rchb. f. (p. 684), an interesting and very pretty epiphyte with three-leaved tetragonal

pseudobulbs having an obscure rib between the angles, thick-textured leaves, and peduncles bearing several flowers which have the sepals and petals blackish-purple inside, with green transverse linear or hieroglyphical bars, the lateral sepals deflexed, and the lip white, with a ruff or collar of 13 purple ribs; see 1883, p. 185; Demarara; Veitch & Sons.—*Cypripedium Robbelinii*, Rchb. f. (p. 684), near *C. philippinense*, Rchb. (*laevigatum*, Batem.), but with the leaves narrower, the flower stalk more hairy, the dorsal sepal narrow whitish, with dark purple nerval lines, the lower sepal purplish white, and the lip yellow, with a light ochre-coloured staminode; Philippine Islands; Consul Kienast Zolly, Zurich.—*Masdevallia racemosa Crossii*, Hort. (p. 691), a fine variety of the old *M. racemosa*, with spikes producing 10—14 large showy flowers of an orange-scarlet colour; very rare; Shuttleworth, Carder & Co.—*Helleborus niger altifolius*, Hort. (p. 693), a magnificent variety of the common Christmas Rose, with creamy white flowers nearly five inches across; Carniola; W. Brockbank, Esq.—*Galeandra Harveyana*, Rchb. f. (p. 716), a pretty species with the habit of *G. Devoniana* and flowers like those of *G. Strangeana* in few-flowered racemes, with sepia-brown sepals and petals, and a light yellow closed lip having a tuft of hair on the anterior part of the disk, and there is a mauve border to the column; E. Harvey, Esq.—*Adiantum cuneatum deflexum*, T. Moore (p. 716), a pretty and distinct dwarf form of *A. cuneatum*, dense and stocky in habit, and having the small wedge-shaped pinnules deflexed, that is, with the edge turned downwards after the manner of *A. Bausei* between which and *A. cuneatum* it was raised; C. F. Bause.—*Caraguata sanguinea*, E. André (p. 716), a handsome dwarf-growing Bromeliad, with blood-red floral leaves, and white flowers nestled deep in the heart of the plant; see p. 9; New Grenada; M. Bruant.—*Adiantum Weigandii*, T. Moore (p. 748), a very pretty Maidenhair Fern, having some resemblance in outline and habit to *A. decorum*, but with the parts in the centre of the frond very widely separate, and the pinnules broadly lobed; Veitch & Sons.—*Desmodium penduliflorum*, Oudem. (p. 748, fig. 133), a beautiful hardy shrub, with slender pendulous branches, trifoliolate leaves, and long curving racemes of light purple flowers produced in the autumn months; Japan; Veitch & Sons.

The GARDEN (Sept. 22—Dec. 8) contains coloured figures of:—*Camellia C. M. Hovey* [pl. 406], a large full smooth-petalled crimson-scarlet.—*Phalenopsis Sanderiana*, Rchb. f. [pl. 407], a charming epiphyte with green leaves, and racemes of flowers of which the dorsal sepal and half the petals are of a delicate pink and the lower half of the flower white, with crimson spotting on the middle portion of the lip.—*Androsace foliosa*, Duby [pl. 408], a fine half-hardy perennial, with obovate-oblong acute leaves, and slender scapes supporting crowded umbels of clear rose-pink flowers; requires protection against damp in winter; Himalaya; Kew.—*Hybrid Narcissi* [pl. 409] four beautiful unnamed seedling varieties from Mr. Barr's collection.—*Papaver alpinum*, Linn. [pl. 410, 1], a charming little mountain plant, with finely-cut foliage, and white cup-shaped flowers with a greenish spot near the base of each petal; varies much in size and colour.—*Achillea ageratifolia*, Benth., also called *Anthemis Aizoon* [pl. 410, 2], a pretty dwarf plant formed of silvery oblong-lanceolate pinnatifid leaves, from amongst which spring up numerous rather large solitary white-rayed flower-heads; Greek mountains.—*Blandfordia grandiflora*, also called *B. Cunninghamii splendens* [pl. 411], a beautiful grassy-leaved greenhouse plant, with an erect flower stem and drooping funnel-shaped flowers of a fiery orange hue edged with yellow; W. Bull.—

Epidendrum rhizophorum, Batem. [pl. 412], the E. radicans of Pavon, a lovely epiphyte, with a tall stem bearing oblong obtuse leaves, racemes of brilliant vermilion flowers, with an orange-yellow lip; an old inhabitant of our gardens; W. Bull.—*Odontoglossum citrosum*, Lindl. [pl. 413], a plate representing the two vars. *roseum* and *album*.—*Dodecatheon Meadia*, Linn. [pl. 414], a group of various-coloured seedling varieties of this fine old herbaceous plant.—*Erysimum pumilum*, DC. [pl. 415, 1], a very dwarf biennial herb, adapted for rockwork, having narrow lanceolate leaves, and deep yellow cruciferous flowers; it is sometimes called the Liliputian Wallflower.—*Sedum spatulifolium*, Hook. [pl. 415, 2], a charming little perennial rock plant, producing roundish tufts of blunt glaucous green leaves, and dense cymes of yellow star-shaped flowers on erect reddish stems.—*Oncidium macranthum*, Lindl. [pl. 416], a well-known epiphyte of great beauty, the long scandent flower-scapes bearing large yellow flowers, with olive-tinted sepals, and a very peculiar hastiform lip.—*Magnolia parviflora*, Siebold et Zucc. [pl. 417], a handsome Japanese shrub, with oblong ovate leaves, and moderate-sized flowers, having a rosy tint outside white within; grown in the American gardens.

The ORCHID ALBUM (parts 22—27) contains figures of the following Orchids:—*Odontoglossum hebraicum lineoligerum*, Rchb. f. [t. 85], a rare and beautiful New Grenadan species, with racemes of large flowers which open yellow and change to creamy white, the sepals and petals marked with elongated blotches of purplish crimson; C. Winn, Esq.—*Cypripedium Parishii*, Rchb. f. [t. 86], a species of Lady's Slipper, with brownish-green flowers, having twisted purple petals four inches long; Moulmein, A. Paul, Esq.—*Vanda tricolor planilabris*, Lindl. [t. 87], a noble epiphyte, with broad-petalled yellow flowers spotted with reddish-brown, and have a magenta-coloured lip paler at the tip; Java, J. Broome, Esq.—*Cattleya labiata*, Lindl. [t. 88], a magnificent plant, with the large flowers of a delicate rosy blush with the lip rich deep magenta-purple; the true plant is scarce; Brazil, H. Gaskell, Esq.—*Eulophia guineensis purpurata*, Rchb. f. [t. 89], a beautiful terrestrial orchid from W. Trop. Africa, the leaves somewhat plicate, and the scapes bearing several spurred deep rosy purple flowers with a broad roundish ovate lip of bright magenta; Sir T. Lawrence, Bt.—*Odontoglossum Coradinei*, Rchb. f. [t. 90], a handsome species with stellate yellow flowers marked with a few large chestnut-brown blotches, the lip paler with a squarish spot; New Grenada, R. Warner, Esq.—*Phaius tuberculosus*, Blume [t. 91], a novelty in gardens, obtained from Madagascar, with broadish plicate leaves and erect spikes of handsome flowers; with white sepals and petals and an obliquely funnel-shaped yellow lip, thickly spotted with crimson, the front lobe white with rosy-purple spots; Baron Schröder.—*Dendrobium Findlayanum*, Parish and Rchb. f. [t. 92], a charming Dendrobium, with knotty stems, and rather large flowers, white tipped with mauve, the roundish-cordate concave lip white with a large orange blotch in the centre and slightly tipped with purple; Moulmein, J. T. Peacock, Esq.—*Cattleya Schofieldiana*, Rchb. f. [t. 93], a charming plant from Brazil, with very large flowers, tawny yellow, thickly spotted with crimson-purple, the lip with large white side lobes and a long-clawed transversely-reniform fimbriated middle lobe covered by beautiful magenta-purple papulae; G. W. Law-Schofield, Esq.—*Odontoglossum Alexandra guttatum*, Hook. f. [t. 94], a fine blush-tinted form with abundant largish chocolate-red spots; R. Smith, Esq.—*Cypripedium Meirax*, Rchb. f. [t. 95], a hybrid Lady's Slipper, with faintly mottled leaves, and showy flowers in which the dorsal sepal is strongly

veined with purple and green, the oblong spreading petals claret-purple, and the succinate lip green-purplish towards the edge; R. Warner, Esq.—*Oncidium Phalaenopsis*, Lind. et Rehb. f. [t. 96], a lovely plant of slender habit, the flowers with white margined sepals and white banded petals, and a large pandurate lip which is white flushed with purple and spotted with dark purple-crimson, with a golden yellow crest; Ecuador, E. Salt, Esq.—*Laelia elegans prasiata*, Rehb. f. [t. 97], a fine species in the way of L. Turneri, with a fine head of large flowers of a light magenta flushed with green, the lip with white side lobes rolled over the column, and a transverse reniform front lobe of rich magenta-crimson veined with deeper crimson; Brazil, Baron Schröder.—*Coryanthes maculata punctata*, Lindl. [t. 98], a most curious and interesting epiphyte, Stanhopea-like in habit, with large yellowish crimson spotted flowers, the sepals resembling bat's wings, and the lip stipitate and cup-shaped, yellowish heavily spotted and blotched in front with deep wine purple; Demarara, W. McDonald, Esq.—*Dendrobium Farmerii aureum*, Williams and Moore [t. 99], a showy variety, with short club-shaped stems, and drooping racemes of golden yellow flowers, the pubescent lip being of a rich orange-yellow; Moulmein, B. S. Williams.—*Lycaste Harrisoniae eburnea*, Moore [t. 100], a very handsome form in which the flowers are of a pure ivory white and the lip pale yellow, heavily veined with reddish-purple, the front lobe being white, with fewer veins; Brazil, B. S. Williams.—*Odontoglossum Leeanum*, Rehb. f. [t. 101], a very beautiful Odontoglossum, the stellate yellow flowers being covered with small spots of brownish-crimson and the lip having a larger blotch near the tip; New Grenada, W. Lee, Esq.—*Pleione humilis tricolor*, Rehb. f. [t. 102], a variety in which the lip is sulphur-yellow with longitudinal and transverse lines of tawny brown spots; Indian Alps, B. S. Williams.—*Dendrobium Draconis*, Rehb. f. [t. 103], better known as D. eburneum, a pretty plant having pure white flowers with an orange spot at the base of the lip; Moulmein and Cochin China, B. S. Williams.—*Oncidium Forbesii*, Hooker [t. 104], a remarkable species, which presents a good deal of variation; the form figured has the flowers nearly covered with rich brown, the margin yellow with close-set transverse bars of brown; Brazil, E. Bonny, Esq.—*Masdevallia Harryana atrosanguinea*, Williams [t. 105], a choice variety in which the singular three-lobed flowers are of a rich glowing crimson flushed with magenta; New Grenada, R. Warner, Esq.—*Maxillaria luteo-alba*, Lindl. [t. 106], a singular-looking epiphyte, the large tawny yellow triangular flowers of which are brownish externally, and the smallish lip yellow, the side lobes veined with purple; Colombia, B. S. Williams.—*Saccobodium curvifolium*, Lindl. [t. 107], a dwarfish interesting plant, with distichous recurved leaves, and dense erect racemes of cinnabar-red flowers; India and Ceylon, W. Lee, Esq.—*Cattleya Trianae formosa*, Williams [t. 108], a very richly coloured variety, in which the large flowers have the sepals and petals of a very delicate blush, and the well-displayed lip rich magenta purple in front, the mouth of the tubulose portion being of a bright orange-yellow, the magenta being continued as a border all round the orifice; Colombia, B. S. Williams.

FAMILIAR WILD FLOWERS.—Of this interesting book a fourth series has lately been issued. It consists as we have said on former occasions of a series of coloured figures of Wild Flowers, very nicely hit off by F. E. Hulme, F.L.S., and also described by him in a popular and flowing style, suited to win over young people to the study of plants, and also supplying short chapters which can be taken up at any time with pleasure and profit by those who have the good taste to prefer reading of this class. For the most part

the figures are good, and we think the artist-author improves in both his pen and pencil sketches as the work becomes more familiar. It is just the sort of book for a New Year's present.

GARDEN GOSSIP.

— THE following dates have been fixed for the SHOWS and MEETINGS of 1884:—ROYAL HORTICULTURAL SOCIETY:—Scientific Committee: January 8, February 12, March 11 and 25, April 8 and 22, May 13 and 27, June 10 and 24, July 8 and 22, November 11, December 9. Fruit and Floral Committees: January 8, February 12, March 11 and 25, April 8 and 22, May 13 and 27, June 10 and 24, July 8 and 22, August 12 and 26, September 9, October 14, November 11, December 9.—ROYAL BOTANIC SOCIETY: Spring Shows, March 26, April 23. Summer Shows, May 21, June 18. Evening Fête, July 2.—MANCHESTER BOTANICAL AND HORTICULTURAL SOCIETY: Spring Shows, March 18, 19, April 29. Grand National Exhibition, May 30. National Rose Society, July 19. Autumn Chrysanthemum Show, November 25.—GLASGOW AND WEST OF SCOTLAND HORTICULTURAL SOCIETY: Spring Show, March 26. Autumn Show, September 3.—NATIONAL ROSE SOCIETY, Metropolitan Show at South Kensington, July 1. Provincial Shows, Salisbury, July 9; Manchester, during July.—KINGSTON AND SURBITON CHRYSANTHEMUM SOCIETY: Annual Show, November 11 and 12.—NATIONAL CHRYSANTHEMUM SOCIETY (late Borough of Hackney): Annual Show at Royal Aquarium, November 12 and 13.

— THE PELARGONIUM SOCIETY, which was instituted in 1874, appears to have done its work. At the annual meeting on December 11, it was announced that from deaths and resignations the number of members had become reduced, so that an effort was required to raise the necessary income to carry on the shows—a proof that the growers and admirers of this flower did not care to have it kept up. It was submitted that the Society had done good work during its existence by stimulating the raising of new varieties, and by the example of its excellent annual exhibitions, but that in face of the languid support now afforded, it would be better to wind up its affairs while it could pay its debts, than to drag on its existence in a state of impecuniosity. Ultimately the meeting was adjourned in order that the question might be more fully considered. The accounts showed a balance of £4 11s. 7d.

— THE CAMPANULA BARRELLERI and its ally C. FRAGILIS are excellent plants for cottage windows. Writing of the former, R. D. says, “I met with this plant in a country town, and was pleased to see that it was the occupant of not a few cottage windows. It was in July when the plants were full of blossom, and they were generally trained over trellises, and so formed charming masses of flower. One occasionally meets with it in a greenhouse, but generally in a starved condition; and it is only when grown in a window that its beauty and freedom of bloom are seen to the best advantage. The flowers are produced from the axils of the leaves, on a pendulous, leafy stalk, or in clusters of three or four flowers at the extremity of the stem. This Campanula makes a very pretty and effective basket plant. It remains for a long time in flower when properly cared for, and it can be easily propagated by division of the root or by cuttings.”

— THE utilisation of GARDEN REFUSE, by burning and charring, is a work to be carried on at this season with such materials as autumn cleanings and winter prunings. All such materials should be collected, and converted into manure. Leaves and other things which will decompose readily may be partially rotted and then used as manure; but harder matter such as prunings require to be treated by fire, and weeds on account of their seeds, should not be rotted but burned. The main object in burning refuse is not merely to get it out of the way but to secure as many ashes as possible, as for many crops these are most valuable as a manure. In burning a heap of rubbish of any kind the flames should never be allowed to break through but the whole mass should smoulder until it becomes charred. In making up the heaps all the prunings should be put in the centre, and weeds and all short rubbish thrown over the top, and after this has been submitted to the action of a slow smouldering fire there will be a large quantity of ashes, which are of great value in a garden.

— THE LADY BEATRICE LAMBTON PINE-APPLE, figured by us in 1879, is thus spoken of by Mr. D. Thomson, one of the highest authorities on the subject, in the *Journal of Horticulture* :—“Another year’s experience of this noble looking Pine fully confirms the high opinion I had formerly held of its superior quality as a Winter Pine. About twenty fruits of it have been ripened here this autumn, and the very highest estimate of its flavour has been formed by all who have partaken of it, and I have been asked if it was Black Jamaica that was handed round. Personally I consider that Black Jamaica is the only Pine to be compared to this much finer looking fruit, the flavour of which is superb. The juice follows the knife in a stream, and I know of no Pine more free from stringiness (if I may coin a word). It melts in the mouth like marrow. It has been grown to 9 lbs. here, and I consider it can be raised to 11 lbs. One peculiarity in its successful management is that it requires to be kept drier at the root than any other Pine after it shows signs of ripening, because it is so deep or high a fruit, and so full of juice, that if kept moist the juice oozes from its base before it is ready to cut. It should also be cut with a green tinge upon it, and this is the stage in which all Pines are best flavoured in autumn and winter.”

— ONE of the SUSSEX FIG GARDENS was recently described in the *Journal of Horticulture* by “Wiltshire Rector,” who writes:—“While at Worthing I was driven to see the famous Fig garden at West Tarring, about a mile and a half inland. Its size is about an acre. You enter, and a dense mass of Fig trees, all standards, are above you; Fig aroma and Fig foliage envelope you, the sweet scent is in the air, the dark green is before your eyes. There is a central path and side paths, all narrow, and so the garden is dim with branches of trees, for the trees all touch each other and join over your head. To one who had never seen a Fig garden it was not only new but strange. Truth is not told, I fear, in that garden, for I came upon a board leaning against a tree, which stated that this is the oldest Fig tree in England, being 800 years old, and was planted by Thomas à Becket! No doubt it was an old tree, probably more than 100 years old, but not 800. One peculiarity in regard to this garden, the continental little bird, the beccafico, or Fig-eater, visits this and one other garden at Sompting not far off. How does the little fellow know that he

shall find out that he will be repaid for a fly across the Channel by finding a Fig garden at Tarring? Verily instinct is wonderful. However it may be, he does know, and does come, but to no other places save the two named.”

— THE value of the PARADISE STOCK for Apples has been questioned in the course of comments on the great Apple Show, and no doubt when apple trees flourish, the freestock and the standard orchard tree are to be preferred, at least on the score of bulk in the crop; but the following testimony by such well-known growers as Messrs. F. & A. Dickson, of Chester, in favour of the Paradise for small or even moderate sized private gardens, cannot be overlooked. They write (*Gard. Chron.*, xxi. 567), “The general Apple crop here for three seasons was almost a total failure, but we had very fair crops of excellent fruit on trees on the Paradise stock. This season the crop has been a wonderful one, and the fruit very large and of grand quality. The collection of 100 varieties of Apples which we exhibited at the Apple Congress at Chiswick, were all gathered from pyramids or bashes on Paradise stocks growing in our nurseries here, and a better proof of the value of this mode of culture could not be given. Such sorts as Lord Suffield, Lord Grosvenor, Wellington, Maltster, Blenheim Orange, Annie Elizabeth, Poit’s Seedling, Winter Hawthornden, Kerry Pippin, Cox’s Orange Pippin, Peagood’s Nonsuch, Loddington Seedling, &c., have been very fine. Indeed, most varieties seem to do well upon this stock, many bushes not more than 2 feet high having two to four dozen of very large fine fruit upon them.” What more could be desired?

— THE BISULPHIDE of CARBON which is used to prevent the spread of the Phylloxera amongst Vines, is, it appears, very poisonous, and should be used with caution. We read in the papers that Californian physicians who have attended various cases of trouble arising from the poisonous properties of bisulphide of carbon, have become satisfied that the inhalation of the vapour of this substance will produce insanity, since several strong and healthy men who have been exposed to the fumes of the vile stuff have become thus affected.

— THE new GRAPE WINTER KING is stated to be the result of grafting Gros Colman on Raisin de Calabre. It has been described as the most handsome Grape in cultivation, being of a deep blue-black, which gives it a very rich appearance. It is of robust constitution, a free setter, colours freely, and is rich in flavour, bearing some affinity to a thoroughly well finished Hamburgh, but with more aroma. The foliage and general character of the Grape is completely altered by the union with the Raisin de Calabre. On the other hand it is argued that “it cannot be a new variety, for if propagated from eyes taken from the graft that has been grown on the Raisin de Calabre, there will doubtless be an entire reversion to the old variety.” This remains to be seen.

— THE old CRIMSON CLOVE CARNATION is one of the best of our border flowers; its colour is decided, the flowers never fail to open in profusion, and its fragrance is delightful. In the gardens at Margam, Mr. Muir, who grows it by scores, says it begins to open its blooms in June, never ceases producing them until late in October, and we can always count on having it in bloom six-

teen or seventeen weeks, which is much longer than the majority of carnations will continue flowering. It is not easily damaged by wet or injured by cold nights, and it will bear any frost or severe weather in winter. If left undisturbed for years it will grow into a large mass many feet or yards in diameter, or it may be layered and rooted like any other carnation and planted out in beds or borders in spring. Young plants like these generally produce the finest blooms; but for a grand, old-fashioned mass the undisturbed plants are unsurpassed.

— WRITING in the *Garden of the Rose* MADAME O. DE KERCHOVE, Mr. Frettingham says that a more thoroughly perpetual white rose we have not, blooming as it does at every point. It is much freer than the well-known La France, to which it is similar in growth, not more than 2 feet in height, and literally a sheet of snow, owing to the freedom with which its lovely white blooms are produced.

— THE Belgian *Moniteur* announces that by a decree dated Oct. 7, M. LAVALLÉE, President of the National and Central Horticultural Society of France, has been appointed Officer of the Order of Leopold, and that the following gentlemen have been named Chevaliers of the same Order:—M. WAGNER, of Riga; M. AUG. VAN GEERT, President of the Syndical Chamber of Belgian Nurserymen; M. DE GHELLINCK, Member of the Council of the Society of Agriculture and Botany of Ghent; M. D'HUYVETTER, Treasurer of the Society, and MM. LOUIS VAN HOUTTE and LUCIEN LINDEN, nurserymen of Ghent.

— IN reference to TREES AND SHRUBS FOR SEASIDE PLANTING, Mr. Webster, the clever forester at Penryhn Castle, states (*Garden*) that the following succeed well along the Welsh coasts, and will, no doubt, do equally well under similar conditions in almost any part of the kingdom:—*Shrubs*: Escallonia macrantha and rubra, Tamarix, Laurustinus, Myrtle, Aucuba japonica, Arbutus Unedo, Garrya elliptica, Hydrangea hortensis, Fuchsia Riccartoni, and Hippophæ rhamnoides. *Trees*: Pinus Laricio, P. austriaca, P. insignis, and P. Pinaster, Norway Maple, Sycamore, Alder, Turkey Oak, Evergreen Oak, and Poplar.

— THE new ROSE PERLE D'OR, is according to M. Jean Sisley, a very remarkable one. It is a dwarf perpetual Polyantha. The flowers are relatively large, produced in great abundance, and in form like those of the Polyantha rose named Cecile Brunner; they are pale yellow, with a deeper centre and slightly edged with white. It will make an exceedingly fine pot plant, and the blooms will be very serviceable for bouquets when mixed with the white Paquerette and the pink Mignonette. Perle d'Or at the last Lyons exhibition, held on September 20, obtained a first-class medal as a seedling Rose.

— THE new SWEET PEA ADONIS is a charming and distinct variety, included among Messrs. Carter & Co.'s floral novelties for 1884. It is a self-coloured flower, of a bright rosy-carmine, or deep pink hue; very pleasing indeed, and forming an excellent contrast to the Invincible Scarlet, pure white, and other self-coloured flowers. At the St. Osyth Seed Farm this fine Pea was seen

to great advantage during the past summer, and it may be considered as one of the most interesting and valuable floral introductions of the year.

— A newly discovered form of *ASPLENIUM ADIANTUM-NIGRUM VARIEGATUM* was brought under notice of the Botanical Society of Edinburgh at its last meeting, by Mr. Lindsay, Curator of the Royal Botanic Garden. It was presented to the garden by Peter H. Rooke, Esq., Weybridge, who obtained it near Pitlochrie in the autumn. The variegation was better marked than is usually found in this species.

— THE finest of all the CRIMSON CYCLAMENS is that named MRS. HENRY LITTLE, a variety raised along with several others of sterling merit by H. Little, Esq., Hillingdon, Uxbridge. The flowers of this splendid variety are very large and broad petalled, in colour bright crimson-maroon, the very dark eye seeming to run through the whole of the flower, so that there is no defined limit between the colour of the eye and that of the petals.

— AS regards the FERTILITY OF THE ORANGE TREE, Mr. Saunders, in an official report to the United States Department of Agriculture at Washington, mentions having seen a large tree in Florida from which as many as 10,000 oranges had been picked in one season; the crop for this year, which had recently been taken from it, amounted to 7,800 oranges.

In Memoriam.

— MR. WILLIAM YOUNELL, of Yarmouth, died on November 21. Many years ago he carried on a good business as nurseryman and florist at Great Yarmouth, his speciality being Gladioli and hardy florists' flowers; but late in life misfortunes came upon him, and in 1881 he was elected a pensioner on the funds of the Gardeners' Royal Benevolent Institution.

— JOHN ELIOT HOWARD, Esq., F.R.S., F.L.S., the well-known manufacturer of quinine, died on November 22, aged 76 years. Mr. Howard's researches in the history of febrifuge alkaloids led, in 1858, to his purchase at Madrid of a manuscript by Pavon, and of a large collection of specimens of Peruvian Bark collected by that botanist in Peru. He also employed Mr. Fitch to proceed to Madrid and execute careful drawings from Pavon's specimens. The result was the publication, in 1862, of Mr. Howard's magnificent illustrated work, *Illustrations of the "Nueva Quinología" of Pavon*. When the cultivation of Cinchona plants was commenced in India, Mr. Howard rendered most valuable advice and assistance, and undertook the laborious analysis of barks grown on the plantations in India, on which he furnished a series of reports, which have been invaluable as guides. In 1869 he embodied the results of his investigations in another costly work, entitled, *Quinology of the East India Plantations*, which has also been of essential use to all who are engaged in Cinchona cultivation. For these disinterested services he received the thanks of H. M. Government. He took a deep interest and pride in his garden, where a separate house was devoted to the growth of various Cinchonas, of which he had probably the largest collection anywhere in cultivation.



BEGONIA OLBIA.

P. De Parmeaecker pinx. et Chromolit. Gand

BEGONIA OLBIA.

[PLATE 603.]

WE have here a new Begonia, which is decidedly pretty, and which is likely to become popular as a free-growing decorative plant, the habit being similar to that of *B. Dregei*, *B. weltoniensis*, &c. ; it is also distinct, one of its most striking characteristics being that the leaves are dotted with white as if besprinkled with small silver coins, which it would seem has suggested the name *B. olbia* from the Greek *olbios*, rich.

This novelty has been introduced into Europe from Brazil by M. Ed. Pynaert Van Geert, of Ghent, who is well known amongst us as one of the most energetic horticulturists of his own country—Belgium, and as a most estimable man. It has been named and described in the *Revue de L'Horticulture Belge et Étrangère*, 1883, 241—where a plate, corresponding with that we now issue, has also been published—by Count Oswald de Kerchove, Governor of the Hainaut, himself a spirited and distinguished horticulturist, and one who as an amateur had acquired a special knowledge of Begonias, through possessing some few years since one of the finest collections of living plants to be met with in the continental gardens. M. de Kerchove compares this *Begonia olbia* with *Begonia diadema*, a silvery-spotted species from the same country; the present is, however, well characterised by its short fleshy or succulent

stems, its erect petioles, its oblique five-nerved irregularly dentate slightly bullate leaves, and its remarkable colouring, the upper surface being of a very dark bronzy green, covered with small reddish hairs, and studded with small neat round white spots, while the under surface is of a deep red. The flowers are white, in small cymes, which are freely produced from the axils of the leaves.

Irrespective of its utility as a free-growing decorative plant, this new Begonia may probably be turned to good account by the hybridiser, who will seek to combine its neat habit of growth and its attractive foliage, with flowers of larger size and more striking colour. Who can doubt with the thousands of hybridised Begonias before him, which have been raised within the few years which have elapsed since the introduction of *B. Veitchii* and *B. boliviensis*, that if this task were to be seriously undertaken it would surely and perhaps speedily be accomplished.

The *Begonia olbia* will, we understand, be quite amenable to cultivation. The temperate house, with an atmosphere kept moderately moist, will suit it while growing, the moisture both at root and top being moderated when at rest after blooming; and a light rich soil, in which leaf-mould abounds, will supply it with a fitting compost for its roots.—T. MOORE.

DESCRIPTIONS OF THE BEST CARNATIONS.—I.

WE have pleasure in presenting to our readers a first instalment of a descriptive list of Carnations and Picotees, which at our request our friend Mr. Dodwell has consented to prepare. Seven years have passed since a similar list was published in these pages, and in the interval so many and such important additions have been made to these flowers, that we felt constrained to urge our friend, whose experience and study so especially qualify him for the task, to undertake the work.

In a note accompanying the instalment now given, our friend says: “In obedience to your order I have commenced the task you are pleased with complimentary words to lay upon me. As you say, there have been many additions made to these flowers since I last

wrote a descriptive list, and many varieties then thought highly of, have waned in their excellence and been displaced.

“A considerable number of these new varieties have been of my own raising, and in describing these, I am necessarily liable to the common error of parents, who see an undue amount of beauty in their progeny. It is proper that readers of these lists should have a full knowledge of this fact, but I hope at its close they will be ready to admit, that if I have seen and attempted to portray the beautiful in seedlings of my own, I have also had a deep and keen appreciation of the beauty, the exceeding beauty, of those obtained by my many friends and brothers, and that I honour and respect their work in a very high degree.”

We have no doubt as to the reception Mr.

Dodwell's work will receive, or of the faith of our readers in his impartiality.—T. MOORE.

SCARLET BIZARRES.

ADMIRAL CURZON (*Easom*).—Thirty-one years ago, I wrote: "Commencing alphabetically, this variety is first upon my list, as it is first in my regard," and despite the changes such a lapse of time inevitably brings, it is pleasant to record the Admiral is yet left to us, and worthy of admiration, as in the days of its earliest youth. Wherever Carnations are grown and shown, there is Curzon—always to the front, indeed quite seven times in ten the best flower of the exhibition. Raised at Derby by James Milwood, but sold by him prior to blooming to Mr. Easom, whose name it bears, first bloomed in 1844, and sent out in 1845, it was one of those large leaps in advance which seem to defy all efforts to surpass. For several years its origin was a subject of dispute, Milwood asserting the seed was taken from his Premier P.F., but in this I have good ground for believing he was mistaken; and I have as little reason to doubt it sprang from Walmsley's William IV., which, excepting only the "legginess" of that old variety, it closely follows both in habit and grass. It has a beautifully shaped petal, smooth, gently cupped, and of good substance, though from the size and number of the centre petals, it requires the aid of a card in blooming. Its colours are rich, bright, well-delineated, and strongly contrasted. Its outline is as unbroken as any flower I have ever cultivated, and its form, when skilfully dressed, good. It is of medium size, and a good grower, and generally produces abundance of pollen, but rarely bears seed unless fertilised. When fairly started, during the swelling of the buds, an occasional dose of clear manure-water will add to the lustre of its colours, and the size of its flowers; but it must be understood this is never given to weakly plants, whether of this or other varieties; such are always stopped, not stimulated, and thus their energies being devoted solely to the young growth, strong, healthy layers are generally obtained for another season.

ALFRED HUDSON (*Dodwell*).—A bantling of my own, and one of the best it has been my good fortune to raise. A seedling from Curzon, but much larger, with the rich deep colours of Fred, on a pure white ground. Habit of grass dwarf, but rises a medium height for bloom. First bloomed in the disastrously wet and cold season of 1879, when we saved a small piping only of the stock. Sent out in 1882. Should be carefully shielded from wet, and the chilling winds of the early spring months, and only the stronger plants be allowed to carry blooms.

ARTHUR MEDHURST (*Dodwell*).—Another

seedling from Curzon, fertilised with pollen from Sir Joseph Paxton. Described in 1880, when sent out, as "first-class in every respect, large and full without confusion, and very richly marked with bright colours," it has since fully sustained its character, and I regard it as amongst the very best I have cultivated.

APOLLYON (*Dodwell*).—A fancy s.b., of singular depth and richness of colouring; smooth, of good form, and a good grower. Raised from Curzon.

BEN SIMONITE (*Dodwell*).—A fine variety; large and full, without confusion, and very richly marked with dark maroon and scarlet on a pure white ground. A seedling from Curzon, crossed with Dreadnought.

CARACTACUS (*Dodwell*).—A seedling from Dreadnought crossed with Curzon. Has more white than that very fine variety, with very bold markings, sometimes extra fine. Habit of grass erect and stiff.

CHARLES TURNER (*Dodwell*).—A medium-sized, highly refined flower. A seedling from Mars, fertilised with Curzon, it illustrates the general rule that the pollen plant confers quality. Like its parent, an early bloomer. A good grower.

DREADNOUGHT (*Daniels*).—A variety of extra fine character, but unhappily, from the fault or misfortune of the raiser, very few collections possess it, *true*. A seedling from Curzon, it follows its parent in most of its characteristics, save that its marking is somewhat more stringent, and the bizarre colour markedly darker. Raised at York, and sent out in 1858. The same cultural attentions suggested for Curzon should be followed here.

EDWARD ADAMS (*Dodwell*).—A seedling from the variety just described, set with Curzon. A very fine flower, worthy to stand in the same rank with its parent, and is a far better grower. Has a large well-formed and well-marked petal, a good white ground, and is very smooth. First bloomed in 1879; sent out in 1881.

FRED (*Dodwell*).—A seedling from John Bayley s.f. The master flower of my s.b.'s. Has the largest petal of any variety I have yet bloomed, with a pure white ground and colours of exceeding richness. A few more petals in the centre would be an advantage, as giving it a higher crown, but Fred at its best leaves little to be desired. First bloomed in 1879; sent out in 1880-1. A vigorous grower, and inclined to sport, should not therefore be strongly stimulated.

GEORGE (*Dodwell*).—Another grand variety. I find it difficult to choose language fairly and fully to portray the beauty of varieties originated in my garden, without exposing myself to the imputation of partiality. But at all risks, I must endeavour to express the delight I have felt in watching the development

of their beauty, and imperfect as the effort must needs be, endeavour to transfer the picture to the mental retina of my readers. George is indeed, in its best state, a grand variety. Not quite so richly coloured as Fred, but large, full, smooth, and of glorious beauty. A seedling from Dreadnought, fertilised with pollen from Curzon. First bloomed in 1879; sent out in 1880.

GEORGE RUDD (*Dodwell*).—A fine variety, large and full, without confusion, distinctly marked with very dark maroon on a pure white ground. A seedling from Curzon; first bloomed in 1879; sent out in 1880. A good grower.

HARRY TURNER (*Dodwell*).—A seedling from Sir Joseph Paxton, of larger size and stronger growth. With me an appreciable improvement on its parent. First bloomed in 1879; sent out in 1880.

JAMES MCINTOSH (*Dodwell*).—A seedling from Chadwick's James Cheetham s.r. A most beautiful variety, richly marked with brilliant scarlet and maroon on an exquisite white ground; petals smooth and finely formed; size medium. First bloomed in 1879; sent out in 1881.

JIM WHITTAKER (*Dodwell*).—A large sized boldly marked and bold flower, very distinctly marked with rich maroon on a good white ground; but the scarlet is pale, and this is so important an element in a flower, that what otherwise would be high class, falls into a secondary place. A seedling from Curzon.

JOB MATTHEWS (*Dodwell*).—A seedling from Paxton crossed with Curzon, with the characteristics of the parents fairly blended. First bloomed in 1879; sent out in 1880. It does not appear to gather strength as it ages.

JOHN BUXTON (*Dodwell*).—A large showy decorative variety, with brilliant colour and good form; useful for the home stage. A seedling from Albion's Pride c.b.

JOHN HINES (*Dodwell*).—But for the unfortunate fact that this variety suffers from a roughness on the edge of one or more of its guard petals, it would be one of the richest s.b.'s in existence, as it is unsurpassed for its beautiful marking, colours, and pure white ground. It also is of full size, well formed, and a good grower; but the serrated edge of the one or two petals so affected, minute as it is, and sometimes hidden by other overlying petals, is a drawback so serious that it falls inevitably into the second rank. A seedling from Curzon, fertilised with pollen from True Briton. First bloomed in 1878; sent out in 1880.

LITTLE JOHN (*Dodwell*).—Another secondary flower, yet nevertheless most desirable, being very refined, regularly and richly marked, and a fine seed bearer. A seedling from Curzon.

MARS (*Hextall*).—Raised by my lamented friend Mr. J. D. Hextall, of Ashby-de-la-Zouch, in the last days of his green old age, and sent out in 1873. A seedling from Admiral Curzon; it is larger than the parent in size, and a more vigorous grower. In the cool temperature experienced during the last two years, its faulty white ground is painfully apparent, but in a hot summer this defect is not seen, and then it is a strikingly bold and fine variety. A good grower.

MASTER STANLEY (*Dodwell*).—A seedling from Sportsman s.f.; first bloomed in 1879. One of the best of my s.b.'s, not large, but brilliantly marked with rich colours on a ground of the purest white; smooth, refined, and of fine form. A good grower; sent out in 1882.

MERCURY (*Hextall*).—A companion flower of Mars, described above, and of the same parentage. Of large size and boldly marked, but not so rich in its colours as Mars.

PHILIP THOMAS (*Dodwell*).—A seedling from Dreadnought. A light s.b. of the finest possible white ground, boldly marked with brilliant scarlet and light maroon; full size, smooth, and of fine substance. A good grower. First bloomed in 1879; sent out in 1881.

RAYNER JOHNSON (*Dodwell*).—In proper character this is one of the best of my s.b.'s. Not so brilliant in the scarlet as Curzon, but in every other respect quite fit to be placed with that grand old flower. But it is very sportive, and a somewhat "miffy" grower, and thus is not likely to hold the high place in the estimation of the general cultivator its merits at its best would suggest. First bloomed in 1878; sent out in 1881. A seedling from Curzon.

REMBRANDT (*Dodwell*).—As a seedling this was the most glorious s.b. I had ever seen. A dozen shoots at least flowered simultaneously with blooms bolder in their markings and richer in colour, on a perfectly pure white ground, than even Curzon itself, and I looked forward to the proving of the next season with high anticipation. It was an illustration of the uncertainty of earthly things, even of things so pure and beautiful as flowers. The wet cold autumn of '79 had greatly affected the stamina of the plant, and the white ground was sorely inferior to its original beauty. In a subsequent year it gave indications of a return to its original glory, so being a fine grower it went to the public as a possible winner of high favour.

ROBERT LORD (*Dodwell*).—A seedling from Curzon; large, fine, smooth, very constant, and even more splendidly marked than its parent, with its rich colours on a pure white ground. This undoubtedly is one of the best s.b.'s grown. First bloomed in 1878; sent out in 1880.

SIR JOSEPH PAXTON (*Ely*).—After Curzon, the oldest s.b. I have now on my list. Sent out in 1851, being a seedling of that year. A flower of noble proportions, full of colour, and very attractive, though far behind Curzon, which, when offered for sale, it was said to surpass. The petal is smooth and gently cupped, but slightly too long. Habit of grass compact; a tall grower, and prolific. Origin unknown.

THOMAS BOWER (*Dodwell*).—A seedling from Curzon, set with pollen from the variety just described; it follows the pollen plant in its colours, form, and fulness of flower, but is not so good a grower. Like its pollen parent also, it has the bad habit of splitting its calyx, unless very carefully tended in the process of blooming.

TITIAN (*Dodwell*).—A thin flower, very boldly marked with dark maroon and rich scarlet; useful for the seedling raiser from the beauty of its petal. A seedling from Dreadnought, set with pollen from Curzon, and a good grower.

TOM BROWN (*Dodwell*).—A medium-sized flower of the Curzon type, from which it springs; very richly marked with brilliant colours.

TOM POWER (*Dodwell*).—A seedling from Sportsman s.f. Large, fine in form, smooth, and very boldly marked with rich scarlet on dark maroon; in an average season it is one of the best s.b.'s, but is very early in bloom, and therefore will not be so frequently shown, as its merits might suggest. A strong grower, but sportive. First bloomed in 1879; sent out in 1882.

WILFRED SYMS (*Dodwell*).—Another seedling from Sportsman, but of very different characterisation. The colours are rich, and the white ground pure, but there are three stripes of colour, or colours rather, in the petals of Wilfred Syms to one to be found in those of Tom Power. There is also as marked a divergence in their period of bloom, the one being very early, and the other late. First bloomed in 1879; sent out in 1880.

WILLIAM SPOOR (*Adams*).—Raised at Swallowell, in the neighbourhood of Newcastle-on-Tyne, from Curzon, set with pollen from Mars; has one of the smoothest finest-formed petals of any of the class, and is beautifully and definitely marked with brilliant scarlet and maroon, but unfortunately the blood of Mars affects the white ground, and much depreciates what otherwise would be a high class and most desirable variety. A good grower; sent out in 1880.—E. S. DODWELL, *Stanley Road, Oxford.*

[Mr. Dodwell's former list will be found to commence at p. 16 of our volume for 1877.—ED.]

NEW SINGLE CHRYSANTHEMUMS.

"**M**R. CANNELL'S Single Chrysanthemums find admirers." So writes one of our contemporaries, and there is no doubt from the interest taken in them when exhibited, that this will continue to be the case, and that they will find as much favour as the Single Dahlias. They do not interfere with the florists' section either in the one case, or in the other, and therefore in neither should we hear disparaging remarks about retrograde movements. The elegant Single Dahlias bred at Chelsea between *D. coccinea* and *D. gracilis* are not the discarded singles of former days, as some folks seem to think, but a new race in which dwarfness and floriferousness are combined with neat elegant-shaped blooms; and so it will be with the Single Chrysanthemums. They will be found to have their uses, and their adoption for these purposes, whatever they may prove to be, need not raise up any opposition to their distribution.

These Single Chrysanthemums all partake of the habit of growth met with in the Pompons, than which they are still easier to grow. The only difference required in their management is to allow all the bloom buds to remain, for the smaller the flower-heads the more useful are they, and the more highly prized.

The single varieties will be found to possess several advantages over the double-flowered sorts for decorative uses. Thus they flower later, and therefore are not so subject to mildew or to damp off. From their open structure the air circulates more freely through the flowers and the sun more readily penetrates the spaces between the florets, so that they hold on more firmly. The flower-heads last fully a fortnight if placed in water after being gathered, and scarcely show any sign of fading within that period. Moreover many of the varieties throw out lateral shoots which come into bloom at the end of December when flowers are few and precious; and how useful these will prove for decorating the flower-vases can readily be imagined. Altogether they have very much to recommend them to notice.

The following sorts, all belonging to what we call the New Departure type, were raised by C. L. Teesdale, Esq., of Chichester:—

ALICE (Fig. 4) : White, faintly tinted with blush ; medium-sized flowers.

ATTRACTION : Quilled florets of medium length, and of a soft rosy lilac colour.

BRUNETTE : Deep reddish chestnut, edged and tipped gold.

FAIR MARGUERITE : White shaded with blush slightly tinted with yellow at the base ; florets somewhat curled.

GUS HARRIS (Fig. 9) : Fine dwarf habit, forming a perfect specimen laden with medium-sized well-formed flowers of a rosy lilac colour, with distinct



NEW SINGLE CHRYSANTHEMUMS.

COACHMAN : Pearly white, medium sized ; yellow disk with a green centre which gives it a striking and effective appearance ; dwarf and very free.

DR. KELLOCK (Fig. 7) : Silvery pink shaded lilac ; pure white at base of each floret forming a distinct white ring, medium-sized well formed flowers.

yellow disk ; quite a gem, and should be included in every collection.

HENRY IRVING (Fig. 5) : A free-flowering and desirable variety of a beautiful soft rose with silvery shading and clear yellow centre ; flowers cupped.

MAGENTA KING : Intense magenta, with deep orange centre ; florets long.

MISS BECKWITH: White, shaded with lilac-blush, and broadly tipped with deep rosy lilac; medium-sized, lightly cupped; distinct.

MISS CANNELL (Fig. 8): One of the best, the flowers medium sized finely formed, pure white, with distinct yellow centre, free and effective.

MISS E. TERRY (Fig. 2): One of the finest of the varieties, with long florets of a bright magenta colour and a clear yellow disk; free and fine.

MONTE CHRISTO: A pretty and distinct variety, deep rosy lilac, with a broad band of pure white round the centre; free.

MR. TOOLE (Fig. 3): Small, well-formed flowers of a clear yellow, very free, distinct and useful.

MRS. KELLOCK (Fig. 1): Large flowers, of a rosy lilac shade, the florets quilled at base of a lighter colour; quite distinct.

MRS. LANGTRY (Fig. 10): A decided acquisition, which will be found very useful for decorative purposes; flowers medium-sized of a pleasing shade of silvery blush; free and effective.

YELLOW GEM (Fig. 6): Bright clear golden-yellow, with distinct orange centre; free and showy.

HENRY CANNELL, Swanley.

GROS MAROC GRAPE.

ALTHOUGH this remarkably fine Grape has been in the country nearly thirty years, it is much to be regretted that its merits are as yet so little known. We are indebted to the late Mr. Thomas Rivers, not only for its introduction, but also for bringing it into notice by placing examples of the fruit, worthy of a First-class Certificate, before the Royal Horticultural Society a few years ago. It was not, however, until the opening of the great International Exhibition at Manchester in 1881 that its value as a first-class Grape for private use and exhibition became known to the million. Since that time many of our large growers have introduced it into their vineeries, and my experience of it justifies me in saying they will never regret having done so.

In the excellent papers from the pen of Mr. A. F. Barron, which appeared in these pages, he says, "It has been much confused with Gros Damas Noir and Black Morocco," two totally distinct Grapes, and further, that it is "difficult to propagate and establish." With me there has been no difficulty experienced in getting it to grow freely enough from grafts, or on its own roots, and I think I may venture to say its obstinacy in the propagating pit will in a great measure give way when thoroughly ripe wood only is used, and not less than two inches of the stem is left below the bud to rest upon the crocks placed in the small pots used for propagating vine-eyes. I have thought it necessary to point

out the way in which a large per centage of the eyes may be made to grow—under good management of course—lest some might be deterred from giving it a trial, as it grows vigorously when once started, and sets and colours well in company with all other kinds of grapes, be they early, late, Muscats, or Hamburgs. But the treatment usually given to Hamburgs undoubtedly suits it best.

Amateurs and others who do not know the Grape should be careful to secure their young plants from a reliable source, as the name unfortunately closely resembles that of another now popular and profitable Grape, Gros Colman, and the berries, which are very large, although decidedly oval when the vines producing them are young, become almost round and not unlike Gros Colman as they get older, and produce from spurs on established vines. Here, however, the resemblance ends, as Gros Maroc is tender in the flesh, vinous, and eatable as soon as ripe, while Gros Colman is firm, fleshy, and requires keeping, if it is to be eaten at its best, some weeks after the leaves fall, and if possible well bottled in a dry warm Grape-room. As the planting season is now approaching let me advise all who have not already done so to find room for a vine in an early or midseason house.—W. COLEMAN, Eastnor Castle Gardens.

CROCUS IMPERATI.

ITHINK that if this lovely species was more generally known, it would be much more extensively grown. I have now a pot of this Crocus containing six bulbs that has produced ten flowers of singular beauty. They are cream-coloured on the external petals, and are marked with a few dark lines; the interior divisions are clear mauve of a particularly pleasing shade, and when these expand and recurve the mauve colour is tinted with pink, and there is displayed to view a saffron-coloured centre, with stamens of the same hue.

This and *C. speciosus*, which blooms in October, are most valuable species, and if followed by *C. biflorus* (the Scotch Crocus), and *C. reticulatus* (Cloth of Gold), they pave the way for the fine varieties of the spring Crocus which succeed them. But both *C. speciosus* and *C. Imperati* flower at a season of the year when, if they are growing in the open air, the blossoms are exposed to vicissitudes of weather

that in most cases seriously impair their beauty. Hence it is that I recommend their culture in pots, and what can be more acceptable than a potful of lovely Crocuses brightening up a sitting-room at that dreary season of the year —the middle of January?—R. DEAN.

AMATEUR, OR WHAT ?

IN most societies formed for the purpose of exhibiting flowers, or plants, or fruits, there are classes for amateurs and dealers and professional gardeners. In many the definitions of the amateur are strangely diverse, not to say fantastic. One society lays down the law that an amateur (say a seedling raiser) may dispose of his productions in the lump without losing caste, but if he separates them into several parcels he becomes, *ipso facto*, a dealer; in other words, that the *wholesale* or *retail* nature of the transaction determines the status of the seller. Another promulgates the doctrine that the selling of roots does not constitute a dealer, but that no one can dispose of plants raised from such roots without coming under the denomination. A third society says the mere act of selling, whether wholesale or retail, in dry roots or green plants has nothing to do with the matter: that it is not the act of selling, but the giving publicity, by advertisements or the issuing of priced lists, of the desire and intention to sell, which alone constitutes the dealer.

The absurdity of these several distinctions requires no comment. To regard them as possessing validity must inevitably lead to two things. First, that dealers alone could raise new flowers; and secondly, that that class should have the further monopoly of selling. Can any sane person suppose that such a state of things could be advantageous to the floral community, or to the dealers themselves? And yet as it appears to me, this is what the conclusions of some executive bodies in connection with floriculture would inevitably lead to, if their definitions were worthy of acceptance.

In the report of the Committee of the National Rose Society for 1882, I find the following, viz.: “In the course of the year a question of a somewhat difficult nature was brought before the Committee, viz., as to the

meaning of the term ‘Amateur,’ as used in the Society’s schedules. After careful consideration the conclusion was come to, that, as it would be almost impossible to draw up any precise definition, which would equitably meet every case that might arise, it would therefore be better for the Committee to decide on each case that might come before it, upon its own merits. *For the guidance of exhibitors they wish it, however, to be clearly understood that in their opinion no person who traffics in either plants or flowers ought to be considered an amateur.*”

But for the portion I have placed in italics, I should regard the conclusion of the Committee as very wise, but the rider attached to the decision re-imports the whole difficulty, and if to be interpreted stringently, as all laws of penalty are, in my opinion, is absolutely fatal to the status of an amateur everywhere.

Every person having a knowledge of the leading growers or raisers of special stocks, whether flowers, fruit, vegetables, plants, horses, kine, sheep, pigs, poultry, or other subjects of utility, taste, or fancy, will be aware that the raisers of such stocks have constant applications for the produce of their skill or attention. And they will be further aware that, as in very exalted instances, annual public sales are held for the disposal of such stocks. Amongst raisers of plants or flowers the results are rarely of such dimensions or importance as to warrant annual public sales, nevertheless they are interesting to many, and if the act of selling destroys the status of an amateur, we are driven inevitably upon the other horn of the dilemma, viz., that only dealers can raise or sell plants or flowers, and the superstructure of floriculture crumbles into ruin. Such an absurdity cannot possibly be maintained. It falls to pieces by its inherent weakness. But not to deal in generalities, let us come to particular cases. The Rose Society at present scarcely offers to us a complete example, inasmuch as yet there are no amateur raisers of seedlings within its borders, or none who have offered their seedlings, though none the less if that opinion of the Committee as to trafficking is to prevail, I venture to say nine in ten of Rose growers, now classed as amateurs, would lose caste. Rose-buds are in great demand, and it has been whispered to me that some two thousand

of the leading new sorts alone went from one amateur this season. But let us come to other flowers of which seedlings are raised, and annually offered. What shall we decide in the case of a gentleman, long and well-known to many, whose circumstances are set out in the following extracts I make from a letter recently received by me—a letter which has indeed been the occasion of my discussing this question?

"I am very much disquieted. — informs me that at our late exhibition, behind my back, my status as an amateur was questioned, and my right to show in that class disputed. I am accused of publishing a priced list of my seedlings, and disposing of the surplus growth of the stock. It is quite true. I do. And more, if I am as successful in the future as in the past, I shall continue to do so. But I deny that I thus forfeit my status as an amateur. I have never grown a plant or fertilised a seed only for profit, and I sell my seedlings, because first, only thereby can I recoup my outlay on their production, and secondly, distribute to those desirous of possessing them. And I took this distribution into my own hands only after every effort I had made otherwise to attain this object had failed. I regard it as peculiarly ungracious that I should be thus assailed, but whatever be the result I shall say with Napoleon at St. Helena, 'They may call me what they like, they cannot alter what I am.' If I am not an amateur, then is Her Majesty not an amateur, and I suppose I may without impertinence address His Royal Highness the Prince of Wales as a dealer in kine and pigs!"

Who can doubt there is a solution of this question, and one not difficult to find? It appears to me that the status of the dealer is easily determined, in that *he not only rears seedlings and sells them as a means of livelihood, but buys for the purpose of reselling them at a profit*; and no amateur can be comprehended in the same category, for the plain common sense reason, that the mere act of exchanging a surplus article for its equivalent in money can never be held to constitute trading.

I remember when this question was discussed some twenty-five or thirty years ago, a very clever person desired to know what nurserymen sold other than their surplus, but this quibble had little avail, it left untouched the crucial point, the dealer *buys and sells to live by the profit*.—SENEX.

[The question raised by our correspondent is a knotty one, and not so easily answered as might, at first, be supposed. Exceptions present themselves where least expected. We think, however (limiting the question to its horticultural application), that it is quite clear an "Amateur" does not lose his status as such by disposing of the stock of any new plants, flowers, fruits, or vegetables he may himself have raised; it may be the whole stock which is thus parted with, or it may be what is designated surplus stock, that is, just what he himself determines he does not require, still he would be an "Amateur"; nor should it make any difference whether he sold in one lump or in many. If the sale extended to other sorts not of his own production, and was at all considerable, he might be considered to have passed the *rubicon*, and become a dealer; but even here no hard and fast line can be drawn, and if the practice was not carried to any great extent who could reasonably object to a grower thus parting with a few of his choice productions—it may be to partially meet the expenses incurred by indulging in his hobby?—ED.]

CROSSING SWEET PEAS.

HE Sweet Pea is unquestionably a most useful and justly popular Annual, and owing to the rich sweetness of its perfume it is in great favour for cutting; but although it is greatly admired and largely grown it is not, in my opinion, nearly so extensively grown as it deserves to be, and it is seldom seen in dressed grounds, I presume from its requiring sticks, which are considered unsightly. In sheltered borders, however, where it is not likely to be blown about, if it be planted very thin (I prefer one good healthy plant to a dozen), and if space is given, it will form a nice bush without sticking, and bloom profusely.

For years little if any advance was made in the improvement of this popular flower, and I heard it suggested by an admirer and raiser, that it was difficult, if not impossible, to advance much further in the direction of new varieties. I had, however, already committed myself to the task, and had got two or three generations on the road; and my experience leads me to the conclusion that in this, as in all other enterprises, perseverance will result in progress. I thought for some time that I was alone in this work, but the fact of the last season having produced several novelties



W.H. Fitch del

Apple Herefordshire Beefing.

from other quarters, proves that there are others at work on the same lines.

I commenced my operations on the Sweet Pea four or five years ago, with the following kinds : Invincible, the Queen, Violet Queen, Captain Clark, Princess of Prussia, Butterfly, and what is generally known as the Black Sweet Pea. These, as in the case of the culinary Pea, were carefully prepared and crossed. The seeds produced from these crosses were sown singly in thumb-pots about the middle of January the following year, and kept in a cold frame till the plants were strong enough to turn out, which was about the end of March. They were planted three feet apart, about one hundred in number. Whether the vigour of the plants was stimulated by the crossing, or the thin planting, or by both, I do not now stop to determine, but the growth and display of bloom was truly unique. They made a row so dense that in some cases where a variety was considered to possess some merit worth perpetuating, it was found difficult to separate them without actually pulling them to pieces.

It very seldom occurs that first crosses produce any very striking novelties. It requires

two or three generations to work up what florists term a strain, hence the value of choice breeds. But in this instance I am pleased to say I selected a few very good varieties possessing more especially the valuable properties of size and quality of flower, with some slight novelty in colour. Thus I was enabled to note a clear break from the parent stock, and the result of the next generation led me to the conclusion that Sweet Peas may be produced in endless variety of colour, and like all other florist flowers, will, with patience and perseverance, be improved in form and size. Like the culinary Pea they are very erratic in their early stages, and require considerable care till they are thoroughly fixed in character.

I notice a clerical error in the cultural portion of my article on Culinary Peas (FLORIST, 1883, p. 181). The word "tall" is used where I refer to "late" Peas. It should read thus :—"Where very late Peas are desirable, Ne Plus Ultra sown early in March and treated as described would continue to bear till destroyed by frost." I shall be glad if you will call the attention of your readers to this, as the word "tall" entirely spoils the sense.—H. ECKFORD, Boreatton Park, Baschurch.

HEREFORDSHIRE BEEFING APPLE.

[PLATE 604.]

HIIS highly-coloured and very pretty Apple, which attracted considerable attention in the collection of Messrs. Cranston & Co., at the National Apple Congress at Chiswick last year, promises to be a variety of considerable merit. A beautifully coloured figure of it is given in *The Herefordshire Pomona* (Plate 35), from whence we derive the only information we have regarding it. It is there stated that its origin is unknown. "Dr. Hogg first saw it at the Apple Show of the Woolhope Naturalists' Field Club, held at Hereford, in 1876. It was then named simply Beefing to distinguish it from the Norfolk Beefing. Dr. Hogg called it the Herefordshire Beefing, the name it now bears. Singularly enough it was afterwards ascertained that a flat roundish Apple, of a brownish red colour, had been sent to Forsyth, the Royal gardener, and author of a *Treatise on Fruit Trees*, in the year 1801, under the name of Hereford Beefin, so that Dr. Hogg's

name was at all events anticipated, if it did not exactly refer to the same Apple.

The HEREFORDSHIRE BEEFING may be described as medium-sized, flat or oblate in shape, even in outline. Skin dark red over nearly the entire surface, dotted with light brown spots, especially around the base of the fruit. Eye open, set in a regularly plaited rather deep basin. Stalk short, set in a deep rounded cavity. Flesh greenish white, very firm, slightly acid and somewhat dry. A culinary Apple for midwinter use. The tree is of vigorous growth, and a constant and heavy cropper, the highly-coloured fruit growing in massive clusters.

It is stated that this Apple has the valuable property of drying well in the oven, like the Norfolk Beefing ; and the Messrs. Cranston & Co. inform us of another special property it possesses, that of drying up when bruised, instead of decaying as most Apples do ; this we have proved to be the case.—A. F. B.

GOLD-LACED POLYANTHUSES.

I DO not think that there is much difference of opinion between Mr. Douglas and myself as to the treatment of these interesting plants ; but he appears to assume at times the possession of an exclusive knowledge ; and when he mounts this hobby he is in danger of being a little incorrect, if not unjust in his inferences. What men like myself are attempting to do in a small and somewhat crude way, in the face of disadvantages and difficulties, ought scarcely to be put into comparison with what Mr. Douglas does with his many conveniences, great resources, and unlimited labour and attention.

My difficulty with Polyanthus in pots has been that the very care taken to preserve them from frost and cold winds in a common frame, necessitated such close and continued covering up, that the plants failed from over-dryness at the roots. Thus it was I conceived the idea of keeping the pots in an open frame all the winter, uncovered and fully open to the weather when favourable, but sheltered from excessive rain and frost. I was led to think favourably of this method from what I saw in Mr. Barlow's garden at Stakehill, Manchester, last spring. Some plants of named Gold-laced Polyanthus that had remained out of doors all the winter in an open and unprotected frame came through the winter much better than others of the same sorts that had been kept in pots under glass during that period of the year. True, it was an exceptionally mild winter, but it was very rigorous at times, and there was the added risk of the Manchester atmosphere.

Up to this date (Jan. 14), my plants—about thirty in number—and all in 48-sized pots, have stood out in an open frame on a bed of cocoa fibre, sheltered from the spells of frosts we have had, and heavy rains. And they have all rooted and grown finely ; and though I have heard that some of the northern growers expose their plants all the winter in this way, I am unwilling to run the risk of loss, and they are now being removed to the Auricula house, where they will be more open to inspection than in a cold frame. They look so well, and have rooted so freely, that I hope I may bring them successfully through the winter, and have a good head of bloom.

And being compelled to grow my Auriculas and Polyanthus all the year round in a north house, or on a northern exposed site, without any means of artificial warmth, both classes of plants flower so late with me, that I cannot get them into bloom in time for the London show in April, unless the spring proves an exceptionally warm and early one. This is another disadvantage ; but the time does come, sooner or later, when I am gratified by the sight of some pips of great beauty. Because a man cannot always come up to time in a fight of this kind, it does not follow that he is necessarily an unsuccessful exhibitor, as I have been characterized, but if the fray were renewed a little later, under more equal conditions, the result might be different. The lack of success at a particular moment does not mean the absence of ability to command it on some other occasion, though this confusion is not unfrequently apparent in the minds of not a few observers.—R. DEAN, Ealing, W.

ARAUCARIA MÜLLERI.

THE *Araucaria Mülleri* is a tree of the future which will take its rank among the most esteemed of the conifers. It was discovered by Pancker, at Mount Congui, in New Caledonia, whence horticulturists have already received so many precious species. Introduced alive into the establishment of M. J. Linden, it has become the property of the Continental Company, and although the samples in culture may not yet be entirely characteristic, it attracts the attention of critics. The relatively considerable height at which this Araucaria grows in its native country, allows us to affirm that there will be little difficulty as to its natural conditions. Its leaves are oval, imbricate, and almost flat, and they are marked in the direction of their length with small whitish spots arranged in series. According to M. Brongniart, the male catkins are cylindrical, from $1\frac{1}{5}$ to $1\frac{3}{5}$ in. broad, and from 8 to 10 in. long. The cone is ovoid in form, $3\frac{3}{5}$ in. broad, and $5\frac{3}{5}$ in. long ; the scales measuring about $1\frac{2}{5}$ in. in breadth and length. Thus far we have quoted the remarks given by M. Rodigas in *Illustration Horticole* (t. 449), where a coloured figure of one of the young plants cultivated at Ghent is given. The accompany-

ing woodcut, which is copied from that figure, has been obligingly lent to us by M. Lucien Linden, and gives a good idea of the graceful plumy character of the plant, which ultimately,

like the *Araucaria excelsa* and other more familiar species, grows into a large tree with spreading branches, and forms an object of striking beauty.—T. MOORE.



ARAUCARIA MÜLLERI.

SCIRPUS TABERNÆMONTANI ZEBRINUS.

WHAT has been grown in gardens during the last few years as the Banded Rush, and supposed to be a species of *Juncus*, has flowered at Kew, and as pointed out by Mr. Nicholson in the *Gardeners' Chronicle*, is found to be a variety of the *Scirpus Tabernæmontani*, a species found on the margin of lakes and rivers in this country. It is a Japanese plant, and Mr. Bull in his Catalogue for 1881 very justly speaks of it as having a most peculiar appearance when growing, the idea suggested by a group of it being that of a little forest of porcupine quills. The plant throws up erect terete leaves, which are transversely banded with white and green, the colours being in most cases pretty evenly distributed, but sometimes the white preponderates, the surface

being either wholly white, or the green bands being narrower and less conspicuous. In the best marked leaves, however, the green and white portions occupy alternately nearly equal bands of about half an inch deep. It is a most interesting plant.

Now that a specimen has flowered at Kew and is found to be a species of *Scirpus*, a more successful mode of cultivation may be adopted. It belongs to an aquatic race, and hence planted out in the bog garden in the new rockery at Kew it seems quite at home, or even more so where the pot in which it is growing is quite submerged. When kept in warm houses, and without sufficient supply of water, there is no wonder that the plant has acquired the character of being difficult to grow.

The typical green form has a wide extra-British geographical distribution, being found east as far as Japan.—M.

REGISTER OF NOVELTIES.

NEW PLANTS.

BILBERGIA WINDII, *Makoy* (*Gard. Chron.*, N.S., xx., 791).—A rather pretty hybrid Bromeliad, raised at Liége, in the establishment of MM. Jacob-Makoy, between *Bilbergia Barquiniana* and *B. nutans*. It has a pendulous cylindrical glabrous peduncle a foot long, furnished with broadly lanceolate, acuminate, boat-shaped bracts of a rich bright rosy-crimson. The flowers are few, racemosc, each about three inches in length, the sepals half an inch long, oblong obtuse, iridescent, reddish at the base, blue at the tips, the corolla protruding beyond the calyx, greenish-yellow, its strap-shaped lobes two inches long, and rolled up circinately like the fronds of a Fern; its six stamens with slender yellow filaments, and its elongated style with flattened blue stigmas; Belgian gardens.

CATTLEYA CALUMMATA, *E. André* (*Rev. Hort.*, 1883, 564, with tab.).—A beautiful and novel hybrid Cattleya raised by M. Bleu, between *C. amethystina* and *C. Acandiae*, the former being the seed-bearing parent. The pseudobulbs are three to four inches long; the leaves are oblong, emarginate, of a deep green sometimes spotted with violet; and the flowers which resemble those of *C. Acandiae* in form have the sepals and petals whitish, tinted with rose and spotted with violet, and the lip with the large side lobes white, and the wedge-shaped centre as well as the column, of a rich velvety violet-red or magenta rose. The name comes from the Greek *kalymma*, a veil or hood. French gardens; M. Bleu.

CYPRIPEDIUM LEEANUM, *Veitch* (*Gard. Chron.*, N.S., xxi., 50).—A very distinct and charming Lady's Slipper, the first of the *C. Spicerianum* crosses, which in its neat habit and many other features partakes more of *C. Spicerianum* than of its other parent *C. insigne* Maulei. The plant is quite dwarf and compact growing, with bright green ligulate leaves, and rather long flower scapes. The flowers have the dorsal sepal large and flat, not reflexed at the sides, broadly oval, pure white, with a dotted central bar of bright purplish-red, the base being bright emerald-green, from which radiate small mauve spots upwards into the pure white. The petals are marked by reddish-brown longitudinal stripes; and the pouch is of a shining brownish-red. The staminode is like that of *C. insigne* Maulei, the only point perhaps in which the hybrid suffers by comparison with *C. Spicerianum*. This little treasure, named after W. Lee, Esq., of Downside, Leatherhead, is due to the skill and untiring patience of Mr. Seden; Veitch & Sons.

IPOMÉA THOMSONIANA, *Masters* (*Gard. Chron.*, N.S., xxi., 818, fig. 147).—A stove climber of great beauty, noticed at p. 93 (1883) under the name of *I. Horsfalliae alba*. It resembles that species in its general habit, but differs in the thick fleshy ternate leaves, the leaflets of which are stalked, rounded at the base, and entire not wavy at the edge; the flowers are nearly double the size and pure white. The plant is of a very free-flowering habit. Introduced by seed from the East (not West) Indies; Ireland & Thomson.

ISMENE ANDREANA, *Baker* (*Gard. Chron.*, N.S., xxi., 11).—A handsome new Amaryllidaceous plant, having a bulb as large as an apple, several pale green glabrous linear leaves, under an inch broad, contemporary with the flowers, which are solitary on slender peduncles shorter than the leaves, the perianth tube green cylindrical, erect, 4½—5 inches long, curved at top, the limb white with linear segments 3—4 inches long, and the corona broadly funnel-shaped 3—4 inches broad at the throat, white with green stripes, the marginal processes rounded, and the anthers

yellow. Banks of the Rio Ambocas, Ecuador; M. Ed. André.

LOTUS PELIORHYNCHUS, *Hooker fil.* (*Bot. Mag.*, t. 6733).—A most remarkable greenhouse shrub of the Leguminous order, but not having at first sight any resemblance to the ordinary type of pea-flowered plants, and far more suggestive of *Ipomopsis*. It is a slender much-branched shrubby plant clothed with short silky hairs; the branches are slender, decurved, with filiform branchlets, bearing filiform leaves; the flowers grow one or two in the axils, and are orange scarlet, with the vexillum uncinate recurved, the wings much longer dimidiate-lanceolate, and the keel still longer incurved and beaked; grows on rocks in Teneriffe, where it is called Pigeon's beak; Kew.

PHÆDRANASSA LEHMANNI, *Regel* (*Gartenfl.*, t. 1138).—An interesting stove Amaryllidaceous plant, with ovate bulbs, elliptic lanceolate petiolate leaves, and three-flowered umbels of drooping tubulose scarlet flowers the short green base constricted and connate, the upper part of the perianth connivent, in a triangular tube-like form about an inch long, scarlet. Colombia; St. Petersburg Botanic Garden.

PRIMULA PROLIFERA, *Wallich* (*Bot. Mag.*, t. 6732).—This very striking Primrose is also known under the name of *P. imperialis* and *Cankrienia chrysanthra*. The narrowly obovate-oblong leaves are the largest of any known *Primula*, being sometimes as much as eighteen inches long. The scape varies from six to twenty inches high, and bears from two to six superposed whorls of faintly sweet-scented flowers of a pale golden yellow, and three-fourths of an inch across. In Sikkim it grows at elevations of 12,000—16,000 feet, in Java it occurs on the loftiest mountains 8,000—9,000 feet high, and in the Khasia mountains of E. Bengal, at 4,000—6,000 feet. It blooms in the open borders during the summer months; Isaac Anderson-Henry, Esq.

NEW FLOWERS.

AMARYLLIS, *Miss Evelyn Holford*.—A fine new winter-flowering variety, of very large size and fine form, six inches across, of a brilliant crimson scarlet, having a short, whitish stripe half way down each of the perianth segments; it has some of the aulica blood in it, and this cross has no doubt given it its winter blooming qualities; B. S. Williams.

ANTIRRHINUMS.—*Argus*, white tube, yellow mouth, bright crimson lips, the lower one tinted with white, distinct and handsome. *Bride*, white tube, the rosy lips veined with white. *Coronet*, canary yellow, striped with crimson. *Firefly*, white tube, golden yellow lips and mouth, mottled and striped with crimson. *Goldfinch*, golden yellow, striped and mottled with crimson. *Julia*, yellow, striped with crimson, fine white tube. *Phidias*, white, mottled with crimson, white tube, very pleasing. *The Moor*, a rich dark crimson self. *Vulcan*, lilac and crimson striped with yellow, mouth white, tube extra fine; R. B. Laird & Sons, Edinburgh.

CYCLAMENS (*persicum*).—*Crimson Beauty*, a charming variety, of excellent habit, and of a very pleasing shade of rosy crimson; flowers of large size and excellent form; 1st-class Certificate R.H.S., January 8. *Amethyst*, deep violet purple, a shade of colour that will no doubt soon be developed into a rich lustrous purple; extra fine form and substance. *Mrs. H. Little*, certainly the brightest and deepest crimson yet seen, rich in colour and very striking. All from H. Little, Hillingdon.

DELPHINIUMS.—*Cleopatra*, dark blue, with fine white eye, magnificent spike two and a half feet in length; a vigorous grower. *Diadem*, azure blue, with metallic shade, semi-double; extra fine. *D. P. Laird*, light azure blue, white eye, slight metallic tinge; very fine. *Glenlyon*, dark blue, black centre;

very fine spike. *Hector*, beautiful azure blue, with white centre; very fine branching spike of great size. *Minerva*, delicate azurc blue with grey centre, tinged with lilae; semi-double. *Petrarch*, beautiful light blue with white eye, metallie tinge; splendid spike three feet in height; a vigorous grower. *Pink Hill*, light blue, finely shaded with lilae, white eye, magnifieent spike of great breadth and length. *Psyche*, fine bright blue with metallie tinge, white eye, good shape; fine spike. *Royal Standard*, bright blue, fine white eye; grand spike. *Venus*, semi-double purple flowers, with dark blue tips, fine compact spike; a grand acquisition. *West Coates*, rosy lilac with azure blue edges, semi-double, very fine compact spike; R. B. Laird & Sons, Edinburgh.

ROSES (H.P.).—*Grandeur of Cheshunt*, a noble rose of great size, vigorous, and thoroughly perpetual, being early and late flowering; colour light crimson, with a shading of rose, peculiarly distinct; large in size, fine petal, and good shape; Paul & Son, Cheshunt. *Marshall P. Wilder*, a variety of vigorous growth, raised from General Jacqueminot, and bearing good foliage, and large full semiglobular well-formed cherry-carmine very fragrant flowers, like those of a pale Maria Baumann; may be considered as an improved Alfred Columb, being more vigorous and hardy and a freer bloomer; the best Ameriean rose yet raised; Ellwanger & Barry, Rochester, U.S.

ROSE (*Tea*), *Rosalie* or *Fairy Queen*, raised from Marie Van Houtte. Of slender healthy growth, with small dark-green foliage, and small flowers a little larger than those of Paquerette, of a deep pink colour, and having a pleasant fragrance; very pretty in the bud state, and of good substance so as to last a considerable time when expanded; a distinct free blooming and charming miniature rose; Ellwanger & Barry.

NEW FRUITS.

APPLE, *Reinette rouge étoilée* (*Bull. d'Arbor. de Flor.*, &c., 1884, 5, with col. tab.).—This Belgian Apple is remarkable for its rosy-tinted flesh, with the pip-cells embedded in white flesh, which forms a central star. The fruit is of middle size, round, with a short thick fleshy stalk set in a broad open basin; the eye is large and open; the skin at maturity is entirely of a deep carmine red, sparingly dotted with brown. The flesh is tinted with rose near the outside, and is fine solid and moderately juicy, sweet and with an exquisite perfume. It is of the first quality as a table fruit, and in use from January till March.

LEMON, *Bijou*, a charming little fruit, of the size and shape of the Lady Apple. It is quite small, the shape is oblate, with a depressed crown, in the centre of which is a small swelling bearing the style point, and the skin is remarkably thin. The flesh is very juicy, and has a fine brisk lemon flavour; T. Rivers & Son.

NEW VEGETABLES.

CABBAGE, *Waite's New Early*, a new and distinct variety that may be justly termed the "earliest of all," being fully ten days earlier than any other known kind; dwarf, compact, very firm, and with but few loose leaves. Is equally adapted for spring or autumn sowing; Waite, Nash, Huggins & Co.

LETTUCE, *Waite's New Cabbage*, a distinct variety adapted for summer use, of the same pleasing colour and general appearance as "All the Year Round," but quite distinct both in the colour of the seed and habit of the plant, growing nearly double the size, and standing much longer before running to seed; Waite, Nash, Huggins & Co.

ONION, *Sandy Prize*, said to be the finest form of the White Spanish type, being a selection from large prize bulbs only, for which the first prize was

awarded in the open Market Gardeners' Class at the Sandy Show, the same strain having for some years previously secured first prizes at these annual shows. Sound bulbs from this strain may be grown upwards of fifteen inches in circumference; T. Laxton.

CELERY, *White Plume*, a variegated sport obtained three years ago at Newark, N.J., from what is called the Half-dwarf Celery. It shows a variegation of creamy-white chiefly confined to the centre stalks and leaves, and is therefore presentable at table without the tedious process of earthing up. Whether it is at the same time crisp and tender, as blanched celery should be, is not stated. Not only are the stalks white, but the leaves also, which gives it the aspect of a bunch of white feathers; hence the name of White Plume; it has the drawback of being more tender than the green-leaved sorts; Peter Henderson, New York.

NEW PUBLICATIONS.

The GARDENERS' CHRONICLE (Dec. 22—Jan. 19) contains figures or descriptions of: — *Oncidium Jonesianum*, Rehb. f. (p. 781), a charming species with terete subulate leaves, and few-flowered racemes of flowers in which the undulate euneate oblong sepals and petals are whitish with sepia-brown blotches, and the large subreniform bilobed blade of the lip is white with purple spots near the isthmus, and the two basal auricles pale yellow; Paraguay; F. Horstman & Co.—*Pinus Laricio Pallasiana* (p. 785, fig. 142), the Crimean representative of the species, and an ornamental tree for the park.—*Oncidium erycina*, Rehb. f. (p. 812), allied to *O. uniflorum*, with ligulate obtuse pseudobulbs, cuneate-ligulate leaves, and two-flowered peduncles, the flowers having light reddish ochre sepals and petals with a few dark bars at the base, and a broadish cordate-reniform bilobed yellow lip, spotted with brown on the isthmus; W. E. Brymer, Esq.—*Phalaenopsis Sanderiana marginata*, Rehb. f. (p. 812), a vigorous form with distinctly veined leaves, and full-sized flowers yellowish-white, the lateral sepals having numerous rows of small purple spots at the base, while the lip has three broad basilar bars on the side lobes, and the middle lobe is neatly marbled with purple on the sides, bears purple dots down the centre, and is coloured with a wash of light purple between, the callus yellowish with red spots; Low & Co.—*Miltonia Warscewiczii xanthina*, Rehb. f. (p. 812), a beautiful variety with the sepals and petals of a deeper yellow than in the type, and a light yellow lip with a narrow white border, the column pure white; W. Lee, Esq.—*Odontoglossum Dormanianum*, Rehb. f. (p. 11, 1884), a handsome epiphyte which forms a link connecting *O. erodipterum*, blandum, and nævium; it has elliptical blunt aneipitous wrinkled pseudobulbs, with short linear-lanceolate acute leaves, and dense racemes of flowers, which have white or whitish stellate sepals and petals with dark sepia-brown spots, and a ligulate acuminate lip tipped with a large brown spot, and marked with pure yellow or yellow with red stripes at the base; New Grenada; C. Dorman, Esq.—*Oberonia cylindrica*, Lindl. (p. 11), a curious Orchid from Manilla described by Lindley in 1840; O. O. Wrigley, Esq.—*Ismene Andreana*, Baker (p. 11), a fine Andean greenhouse bulb, with linear synanthous leaves, and slender one-flowered scapes, the flowers 4—5 inches long with green tube and white limb, the corona white, striped with green; see p. 28.—*Pinus Laricio* (p. 18, fig. 1), the Corsican Pine, recommended as a timber tree.—*Sarcanthus Lendyanus*, Rehb. f. (p. 44), a species allied to *S. termisssus*, but differing in its linear blunt bilobed leaves, and its loosely panicled flowers, which are greenish, with a white purple-spotted lip, of which the two lateral lobes are orange with two purple lines; Saigon, Annam; Major

Lendy.—*Saccobium giganteum illustre*, Rchb. f. (p. 44), a variety said to have broader leaves, and richer coloured flowers, with a brighter lip; the flowers are bluish white tipped and spotted with amethyst; Sander & Co.—*Bouvardia scabra*, Hook. et Arn. (p. 44), a very pretty and attractive species; it grows 12–18 inches high, with crete hairy herbaceous stems, whorls of ovate acuminate leaves, and dense cymose cymes of bright pink flowers with the throat of the tube whitish; the corolla lobes are broadly elliptic ovate and spreading; Mexico.—*Pinus muricata*, Don (p. 49, figs. 7–9), a remarkable two-leaved species, which has the peculiarity of retaining its cones for an indefinite number of years, the fruit scales also remaining closed till a forest fire or some other injury causes them to open; California; D. T. Fish.—*Cypripedium Leeianum*, Hort. Veitch (p. 50), a charming hybrid between *C. Specerianum* and *C. insigne* Maulei, with the dwarf compact habit of the former, and flowers of an intermediate character, the dorsal sepal being white with a central band of purplish-red; see p. 28; Veitch & Sons.—*Calanthe porphyrea*, Rchb. f. (p. 76), an exquisite hybrid, raised from *C. vestita rubro-oculata* crossed with *Limatodes labrosa*. It has a constricted fusiform bulb, and a hairy peduncle bearing a zigzag raceme of very handsome flowers; the sepals and petals are oblong acute of the most exquisite dazzling purple; the lip is three-lobed, the anterior lobe being emarginate, protruded, and of a fine purple, while the base is yellowish with small purple spots; the spur is ochre-coloured; Sir T. Lawrence.—*Pecatoria Klabochorum ornatissima*, Rchb. f. (p. 76), a very fine variety with dark mauve-purple tips to the petals and numerous spots near their base, with a solitary spot at the base of the upper sepal; Sir T. Lawrence.—*Laelia albida sulphurea*, Rchb. f. (p. 76), a large flowered variety, with sulphur-coloured flowers, with orange crests and dark purple reticulations at the base of the lip, and dense dark purple lines in front of the column, the anterior lobe of the lip tinted with light mauve on each side; Heath & Son.

The BOTANICAL MAGAZINE (Jan.) contains figures of *Decaisnea insignis*, Hook. f. et Thoms. [t. 6731], a dioecious Aralia-like tall deciduous shrub belonging to the Lardizabalads, requiring greenhouse protection; the leaves are 2–3 feet long, with many pairs of ovate or elliptic acuminate leaflets, and the drooping green flowers grow in terminal and axillary racemes a foot long; Sikkim; Kew.—*Primula prolifera*, Wallich [t. 6732], a large-leaved Primrose, allied to *P. japonica*, with several superposed whorls of yellow flowers; see p. 28; Mountains of India and Java; I. Anderson-Henry, E-q.—*Lotus peliorhynchus*, Hook. f. [t. 6733], a slender cano-sericeous much branched greenhouse shrub, with filiform leaves, and axillary scarlet flowers, having an uncinate recurved standard, long dimidiate lanceolate wings, and a still longer incurved beaked keel; they are quite unlike those of the ordinary forms of Leguminosæ, to which order the plant belongs; Tenerife; Kew.—*Morina Coulteriana*, Royle [t. 6734], an elegant greenhouse herb, 6–18 inches high, of perennial (or biennial?) duration, with long linear-oblongulate spiny-edged radical leaves, the stem having the leaves whorled, and being terminated by interrupted spikes of long-tubed pale greenish-yellow bilabiate flowers; Himalayas; Kew.—*Phacelia campanularia*, A. Gray [t. 6735], a blue flowered annual figured in our vol. for 1883, plate 595.

REVUE HORTICOLE (Nov. 1—Jan. 16) figures *Philodendron Mamei*, a rather handsome Arad from Ecuador (see p. 185); and *Bomarea Kalbreyeri*, a beautiful species of the group of climbing Alstroemerias. There are also woodcut figures (figs. 99 and 100) of the *Solanum Ohrondii*, the new Potato,

which Mr. Baker identifies with *S. Commersoni*.—*Anthurium ferrièrense*, Bergman, a beautiful hybrid between *A. Andrcanum* and *A. ornatum*, of stout habit, with large deflexed cordate cuspidate deep green leaves, and erect spathes of the same form, of a delicate rosy-carmine, the spadix white tipped with yellow. M. Ducharte suggests that it ought to be called *A. ornato-Andreamum*; raised at Ferrières by M. F. Bergman.—A woodcut (figs. 106–107) represents *Phyllanthus Chantrieri*; Ed. André, an erect stove shrub from Cochin-China, with flatly spreading branches having the appearance of long pinnate leaves; the true leaves are brilliant lustrous green, obliquely distichous, subsessile, unequal-sided, trapezoidal, acuminate, and from their axils the small brick-red yellow-fringed flowers are produced, the males growing from the under, the females from the upperside.—*Cattleya calummata*, Ed. André, a fine hybrid raised between *C. Aclandiae* (not *Aclandia*) and *C. intermedia*, with blush-white flowers spotted all over with purple, and a rich purple-crimson lip; see p. 28; raised by M. Bleu; French gardens.—*Impatiens Sultani*, Hook. f., a free-growing free-flowering Balsam from Zanzibar, now pretty well known.—*Malus microcarpa Davidii*, Carrière, is described as a very ornamental tree with a roundish head and drooping branches; in spring wholly beautiful with its rosy flowers, and very ornamental in autumn with its numerous highly-coloured bright red fruit.—*Passiflora atomaria*, Planch., a free-growing climbing stove plant, with three-parted bluish-lobed leaves, and white flowers, about two inches across; N. Grenada; E. André.

GARTENFLORA (Dec.) contains plates of *Anguloa uniflora*, Ruiz. & Pav. [t. 1137], a bold-looking epiphyte, with large plicate leaves, and solitary obliquely-set whitish flowers, from Colombia.—*Phædranassa Lehmanni*, Regel [t. 1138], a pretty Colombian Amaryllid requiring stove culture; it has narrow linear cotemporaneous leaves, and nodding scarlet tubulose flowers, an inch long, in three-flowered umbels.—*Stanhopea florida*, Rchb. f. [t. 1139], an uncoloured figure reproduced from the *Gardeners' Chronicle*.

REVUE DE L'HORTICULTURE BELGE, &c. (Jan.) has a handsome figure of *Æschynanthus Lobbianus*, which by some oversight has been named *Æ. tricolor*. This is a family of Cyrtandraceous plants, which embraces many splendid stove species, far too seldom met with in gardens now-a-days, and some of which will run like ivy over the damp walls of a plant stove.

The BULLETIN D'ARBORICULTURE, &c. (Jan.), gives a well-marked figure of the Belgian Apple *Reinette rouge étoilée*, which is more fully noticed at p. 29.

The JOURNAL DES ROSES (Jan.) figures M. Schwartz's *H. P. Rose Colonel Felix Breton*, a strong growing variety, with medium-sized flowers, full and regularly imbricated, and of a deep velvety garnet crimson, the outer petals taking on a purplish tint. It was sent out in 1883, and has been exhibited before the Association Horticole Lyonnaise, and the Société d'Horticulture pratique du Rhône, and awarded a prize of the first class.

GARDEN GOSSIP.

THE TUBEROUS-ROOTED SPECIES OF *Solanum*, known as Potatos, formed the subject of a paper read by Mr. J. G. Baker, of Kew, at a meeting of the Linnean Society on January 17. Out of the 700 species of *Solanum* known to botanists, about twenty are estimated to produce tubers, and of these only one, the common Potato, *Solanum tuberosum*, has as yet been

cultivated to any extent. Mr. Baker thinks that not more than six of them are really distinct, these being :—1. *S. tuberosum*, a native of the dry regions of the Andes from Chili northwards, reappearing in Mexico and the Rocky Mountains. 2. *S. Maglia*, a native of the damp low regions of Chili near the coast, as far south as 44° — 45° . 3. *S. Commersoni*, a low-level plant of Uruguay and S. Brazil, lately published as a novelty under the name of *S. Ohrondii*. 4. *S. cardiophyllum*, a native of the highlands of Central Mexico. 5. *S. Jamesii*, a native of New Mexico and Arizona, now being experimented upon in the United States. 6. *S. oxyacarpum*, a little known plant from the Mexican highlands. Nos. 5 and 6 have very small tubers. All our cultivated Potatos belong to *S. tuberosum*, but the species gathered in the Chonos Archipelago by Darwin, and one experimented upon in 1826 at Chiswick by Sabine were both *S. Maglia*. The ordinary Potato is grown as if its sole object in life were to produce tubers, and, moreover, it is grown under artificial conditions of climate and soil. Under these circumstances, the plant naturally loses its vitality, as indicated by the fact that after a time it ceases to produce flowers and seed, and it then readily becomes a prey to the potato disease. The same rule applies to other plants, where one function is stimulated at the expense of another. The best method therefore of preventing the potato disease is to grow that Potato which is most suitable to the climate, and to restore the vitality as soon as the plants cease to flower and fruit by cutting off the stems which produce tubers and saving only the roots which obtain nourishment for the plant. Mr. Baker further suggests that Nos. 2 and 3 should be brought into cultivation, and tried both as specific types, and for hybridising with the best forms of the common Potato.

— THE CRYSTAL PALACE COMPANY announce the following HORTICULTURAL EXHIBITIONS to be held at the Palace this year : namely, an Exhibition of Spring Flowers on April 4 and 5 ; a Summer Show on May 23 and 24 ; a Rose Show on July 5 ; a Fruit Show combined with the Grand National Dahlia Show on September 5 and 6 ; a Grand Harvest Festival, and Fruit and Root Show incorporated with the International Potato Exhibition, from October 7 to 11, inclusive ; and a Show of Chrysanthemums and Hardy Decorative Shrubs on November 14 and 15.

— THE GRAND INTERNATIONAL HORTICULTURAL EXHIBITION to be held at Dundee during the ensuing autumn is fixed to take place from September 11 to September 13. Upwards of £1,000 will be offered in prizes, which are fixed on a very liberal scale. The several classes for Trade growers, Gentlemen's Gardeners, and Amateurs, leave a fair field for all. The schedules are now being issued.

— THE VEITCH MEMORIAL TRUSTEES have decided to allot the following medals and prizes during the present year (1884), viz. :—I. A Veitch Memorial Medal and prize of £5 for each of the following subjects—(1) The best specimen Orchid in bloom ; (2) the best stove or greenhouse plant in bloom ; (3) the best dish of two bunches of Grapes, one variety. These to be offered at the Dundee International Show, which takes place on September 11—13. II. A Veitch Memorial Medal and prize of £5 for—(1) The best specimen Orchid in bloom ; (2) the best stove or greenhouse plant in bloom—these to be offered at the Royal Botanic

Society's Show on May 21 ; and for—(3) the best dish of three bunches of Grapes, to be offered at the Royal Botanical Society's Show on June 18. III. A Veitch Memorial Medal and prize of £5 were also placed at the disposal of the respective committees of the National Auricula Society (Southern section) ; of the National Carnation and Picotee Society (Southern section) ; and of the committee having charge of the National Dahlia Show. These prizes are only eligible to be competed for by amateurs and *bond fide* gentlemen's gardeners.

— THE GARDENERS' ROYAL BENEVOLENT INSTITUTION held its forty-sixth annual meeting on January 10. The balance sheet showed a revenue of £2,767 11s. 1d., consisting of subscriptions £1,196 10s., donations £704 10s. 4d., dividends on stock £441, advertisements £47 13s., and balance brought forward £377 17s. 9d. The creditor account showed pensions £1,312, invested in consols £600, working expenses, including salary, printing, stationery, advertising, expenses of annual dinner, &c., £489 4s. 9d., leaving a balance of £366 6s. 4d. The amount realised by the simultaneous collection in aid of the Pension Augmentation Fund was £634 5s. 9d., and of this sum £600 has been invested in Victoria bonds. The total amount of the reserve fund is now £17,750. The forty-first annual festival has been fixed for July 2 next, when George Lambert, Esq., F.S.A., Master of the Worshipful Company of Patten-makers, and Warden of the Worshipful Company of Goldsmiths, had kindly consented to take the Chair.

— THE new VIOLA CHELSEA BELLE is an improved form of the well-known and excellent Viola Blue-bell, and was raised in the Chelsea Botanic Gardens from seed of that variety. It has been subjected to two seasons' trial, and is considered a very decided advance upon the older variety in these particulars, namely, that the colour of the flowers is distinctly several shades deeper and brighter than in the parent, and that the form is improved, being less windmill-like and with the size slightly augmented. It has fully developed the continuous-blooming character, which is one of the best features of the Blue-bell, the numerous plants grown at Chelsea having, without any special treatment, continued blooming without intermission throughout the summer, say from April till October.

— WE look for FRAGRANCE IN THE ROSE, and therefore scentless Roses, however beautiful, are devoid of one great charm. From this point of view it has been recommended that those who are fond of highly scented H.P. roses, and who do not already possess *Ulrich Brunner* should at once obtain it. It is a really good variety, with enormous flowers of exquisite scent, and of fine form, the colour being a very pleasing one, described as a bright clear cherry rose.

— IN reference to *Cytisus Adami* M. C. de Candolle, at a meeting of the Helvetic Society of Natural Sciences, held in August last, described the results of his attempts to determine how far any light could be thrown on the disputed origin of this *Cytisus* by the anatomical structure of its leaves. This plant, which suddenly made its appearance in the nursery of M. Adam, at Vitry, near Paris, early in the present century, and which is remarkable for producing red and yellow blossoms mostly on separate branches, is usually regarded as

a cross obtained by grafting the *Cytisus purpureus* on the *C. Laburnum*; but M. de Candolle concludes that it is not a hybrid, but simply a degenerate variety of the laburnum. This conclusion, which might be admissible if the only sports produced were different coloured flowers of the common Laburnum, appears sufficiently negatived by the breaking out of tufts of pure *C. purpureus* on the trees of *C. Adami*.

— **T**HIS GARDENERS' YEAR-BOOK for 1884 is, as usual, full of handy reference matter, such as one often needs at the writing table. The lists of Novelties in the way of Plants, Flowers, Fruits, and Vegetables, are among the things acceptable for ready reference, as also are sundry tables and receipts, and other notes of general utility.

— **U**NDER cool treatment the flowers of *EUCHARIS AMAZONICA* come much larger than those brought on rapidly in heat. This Eucharis cannot, indeed, be grown satisfactorily in a cool temperature, but if as soon as the flower spikes show themselves the plants are taken to another house in which the temperature is 15 degrees lower, those so treated have much larger flowers than those which remained where they were.

— **T**HE *Journal of Horticulture* mentions a NEW *CHIONODOXA*, *C. sardensis*, in the following terms:—"Another species, *Chionodoxa sardensis*, has been introduced to notice. The collector, who found the bulbs, it is said, near the ruins of Sardis, at an elevation exceeding 4,000 feet, describes the flowers as 'larger and more numerous than those of *C. Luciliae*, and, with the exception of a very small white eye, are of a uniform intense *Nemophila bluc*.' If this description proves correct the plant will undoubtedly soon share the popularity of its better known beautiful relative."

— **O**NE mode of DESTROYING TREE STUMPS adopted with success in the American backwoods is the following:—In the autumn bore a hole in the stump one or two inches in diameter and eighteen inches deep, put in 1½ oz. of saltpetre, fill with water and plug up close. In the following spring put in the same hole half a gill of kerosene oil, and then light. The stump will smoulder away without blazing, even down to every part of the roots, leaving nothing but ashes.

— **W**RITING of AZALEAS FOR FORCING, a correspondent of the *Garden* states that the variety named Pauline Mardner is undoubtedly the best of all Azaleas for this purpose. Its flowers are very large, and of a pleasant light rose colour, many of them being semi-double. Plants of *A. amoena*, Fielder's White, Old White, and this one were all started together, but Pauline Mardner was in full flower by the time the others had begun to swell their buds. Azaleas in flower are valuable at all times, but one which so readily submits to forcing deserves to be brought prominently into notice.

— **A** BEAUTIFUL and novel CHINESE PRIMULA, QUEEN OF THE WHITES, was recently shown at South Kensington by Mr. Cannell, of Swanley. It belongs to the fern-leaved section, and is one of the purest whites yet obtained. It is of stout sturdy habit with fine trusses of well displayed flowers,

which are very large, beautifully frilled, and of snowy whiteness. One of their great beauties is the presence of a well defined orange-coloured eye which imparts life and brilliancy to the flower. We believe it is the first fern-leaved white which has been obtained.

— **F**ROM the *New York Times* we learn that FLOWER FARMING has grown into a great industry in that city, almost the whole supply passing through brokers' hands. "The sale room is that of one of the largest commission dealers in flowers in New York. 'I want 50 Jacs,' said an elderly gentleman with a capacious basket who had come for his daily supply, 'a dozen Mermets, 100 sprays of mignonette, 200 carnations, 200 camellias, 50 strings of smilax, 25 lilies of the valley, and 50 bouvardias.' The articles were counted off as he named them and put into the basket, where they hardly covered the bottom, and yet the wholesale price of the order was £16. The basket would easily hold £100 worth of roses or £200 worth even of lilac sprays, which at this season of the year are among the most valuable of flowers. Orders followed rapidly, and by noon the counters were as bare as Mother Hubbard's cupboard. The business of growing fine flowers for the market has become a great industry; hundreds of thousands of dollars are invested in hothouses, and the product amounts to over £400,000 a year at the wholesale prices. A good rose bud is always saleable."

In Memoriam.

— **M**R. THOMAS SPEED, gardener to the Duke of Devonshire at Chatsworth, died, by his own hand, on December 26. He was one of the best of gardeners, and one of the kindest hearted of men, but he was a martyr to gout, and it has been suggested that the medicine he had taken had so far affected him as to produce mental depression, with the sad result above indicated. He was born at Abingdon on December 19, 1832, his father being at that time gardener and steward at Abingdon Hall, and here he commenced his gardening education, subsequently removing to the Pymmes, Edmonton, and to Wrotham Park, where he was in due time promoted to be foreman, and afterwards became foreman at Belvoir Castle. In 1859 he was engaged as gardener to the late Sir Edward Walker, Berry Hill, Mansfield, where he made a name for himself as a Grape grower of the highest repute, producing annually fruit of such size and general excellence as surpassed all that had been seen before in the Midland districts. In 1868 Mr. Speed was engaged to succeed Mr. Taplin at Chatsworth, and there he well maintained his professional reputation. He has left a family of six children.

— **M**R. BENJAMIN MALLER, of the Burnt Ash Lane Nurseries, Lee, Kent, died on January 1, 1884. He was a native of Ashling, in Sussex, and in early life was employed as a journeyman in the gardens at Stanstead Park, from whence he came to London, and some years ago commenced business on his own account in the nursery line, in which he soon won the respect of his compeers, being a first-class cultivator, and a thoroughly straightforward man. His particular branch was the cultivation of winter and spring flowering Heaths, and other plants, for what is known as the autumn trade, in which he met with great success.



W.H. Fitch del.

Clematis Jackmanni alba.

CLEMATIS JACKMANNI ALBA.

[PLATE 605.]

IN 1877, we published in *The Clematis as a Garden Flower*, the following description of this variety, which had been raised by Mr. C. Noble, of Bagshot, and had been exhibited by him in the shape of cut specimens at one of the meetings of the Royal Horticultural Society :—

“A light-coloured variety, apparently belonging to the early Jackmanni group, and raised from *C. Jackmanni* crossed by *C. Fortunei*. It is of vigorous growing habit, the leaves pinnately divided with ovate lanceolate leaflets, or ternate with the terminal leaflets sometimes lobed. The flowers are four to six-sepaled, of a greyish white, the sepals elliptic-oblong acuminate, the filaments short, white, with whitish-brown anthers. It is the nearest approach yet made to that great desideratum, a white-flowered *Clematis Jackmanni*.”

From that time till the past summer little or nothing was heard of *C. Jackmanni alba*. Some fatality seems to have attended it, and prevented its oft-expected reappearance in public; in fact, we believe, it was at one time nearly lost, but it has at last revived, and on July 24 Mr. Noble produced at South Kensington a handsomely grown and well-flowered specimen, which received the unanimous award of a first-class Certificate, and well deserved such a mark of distinction. Our figure, drawn by Mr. Fitch, shows sufficiently well its peculiar characters. Like true Jackmanni it has pinnated (not ternate) foliage, and like that variety too, it bears on the current year's shoots masses of flowers, which are also like it variable as to the number of sepals, some flowers having six, and others only five, or four. Again, as in that splendid hybrid, as

soon as the earlier flowers die off they are replaced by clusters of buds which spring up to succeed them, by which means the continuous succession of blossoms characteristic of the group is assured. The colour effect of the flowers is white, but on close inspection they are found to be just tinged with blue, which gives them the faintest possible flush of grey. We hope it may prove to be as hardy and vigorous a grower as *C. Jackmanni* itself, which for its hardiness, vigour of growth, and freedom of flowering stands at the head of shrubby climbers for the outdoor garden.

In a fine illustrated work on these larger flowered Clematises recently published, M. Lavallée has asserted that *C. Jackmanni* is not Jackmanni—that is to say, it is not a hybrid, as stated by the raiser Mr. G. Jackman, but a species (*hakonensis*) first introduced from Japan, and then according to this theory claimed as an English seedling. We are bold to assert on the contrary that *C. Jackmanni* is Jackmanni and nothing else, a veritable hybrid of which the origin and whole history is well known to many of us, and which was raised nearly twenty years before *C. hakonensis* was described. The characteristics assigned to *C. hakonensis*, moreover, do not tally with those of *C. Jackmanni*, since the former has the leaves “ternate” and the sepals “scarcely an inch long,” whereas in the latter the leaves are pinnate, with five or more leaflets, and the sepals are at least two and a half inches long. It must therefore be concluded that M. Lavallée is altogether in a fog respecting the true *C. Jackmanni*.—T. MOORE.

TREE AND SHRUB PLANTING.

THIS season is drawing near when such work as planting trees and shrubs is resumed. Few planters do the work during the winter months, except circumstances compel them; autumn and spring are the periods which are preferred for executing the work, though during summer evergreens are sometimes planted with much satisfaction. Early during last August we planted many yews, and they laid hold of the soil readily, and made some little growth before the autumn was past. During a period

of more than twenty years we have seldom missed a season without planting large breadths of shrubs of every class, deciduous as well as evergreen, also forest trees in great variety; and have found with evergreens that in early autumn (say during September) and late spring when growth was about to commence, the plants always did well. Deciduous plants always moved off satisfactorily into growth when planted just before the leaves began to fade, or when growth was commencing.

When trees are put into soil like puddle,

especially during winter, they invariably stand a season or two without moving into growth. Preparation of soil by trenching, and well breaking it when placed next the roots, is of great moment. When we hear of failures in plantations, and the nurseryman is blamed for sending out "inferior stuff," we are curious to know how the work has been manipulated at planting time. In heavy clay land the roots do not take hold readily, and if trees are planted during a wet period they are apt to die off in great numbers, but in light soil the case is quite different.

If clay soil, when wet or sodden, is placed to the roots of plants, the danger of killing them, or at least keeping the plants a long time in a stunted condition, is very great indeed. The presence of loose open soil to entice the roots into active growth the first season is of great moment, and when land is trenched, opening the bottom well to let drenchings of rain pass off is important. We have examined the roots both of large and small trees after death had thinned plantations immensely, and when the fault had been attributed to want of water, but facts proved that the real evil was the presence of water which had collected in quantity, and remained about the roots as if in a sealed vessel. Holes large and deep had been dug into the tenacious land, and when the rain filled the holes there was no escape through the solid mass, in consequence of which the roots rotted, and when sun and drought set in the plants perished, thereto being nothing to support them.

In trenched land with the bottom turned over roughly, the case is always the opposite; besides, it is well known that a mass of soil turned over and well broken is much greater proof against drought than when it is consolidated like bricks. On banks and hills trees and shrubs often luxuriate, while in the valleys close by they may often be seen perishing. In these cases, first, sodden sour soil, then drought, are the destroyers.

Keeping the trees firm in their positions by stakes is very important, but large ones are more easily managed with ropes extending from short stakes (driven firmly into the ground) to the trunks of the trees. Three stakes should be placed in the ground at equal distances apart, and the ropes fastened at one

height round the trunk, which must be well protected with cloth, hay-bands [old india-rubber hose split open], or some other material to save the bark. We have always noticed that the trees do best with soil made firm about the roots, and a coating of loose soil, say six inches, placed over the surface *as mulching*.

When visiting large places as well as small ones, it is common enough to see the planting of shrubs and trees done in the most injudicious manner, neither views nor surroundings having received the least consideration, but what is called "dotting" being visible everywhere, which is simply placing plants at regular distances all over the grounds, forgetting that great breadths of grass viewed through wide openings between clumps or single trees, are beauties which never fail to be attractive. By "dotting" every distant object in the landscape is shut out, and a blind formed with trees which, though *not* placed thickly, may be sufficiently close to shut out all that it is desirable to keep in view.

Lawns in front of mansions, instead of being open and free from encumbrance with trees and shrubs, are often "dotted," so that no prospect is left. One of the most ruinous practices of the present time is that of cutting up lawns into flower-beds—placing figures among trees and filling them with flowers—curtailing and rendering insignificant what otherwise might have been pleasing and beautiful. We have often seen avenues, and large breadths of trees, sometimes giants of the forest, interfered with by having the ground broken up around them, deep enough to injure their roots, and a surface prepared, in which are planted a heterogeneous mixture of trees and shrubs, hiding the noble trunks, removing what was, or ought to have been, clean green grass, and leaving an impression that there was present something obnoxious to be hidden by such a procedure, while, instead of giving an appearance of extension, the demesne is cramped and disfigured. Small places are by such practice rendered more diminutive still, and being shut in, become dull and unattractive.

Another method of deforming parks and pleasure-grounds is by introducing what are known as "serpentine" lines—which generally

consist of a monotonous number of curves, often painfully abrupt; and when all is finished, the plantation is as ugly and unnatural as could possibly be devised.

Trees and shrubs form outlines of their own, and when clumps of them are not massive and compact, the landscape is sadly marred after a few years' growth has been made; and the greater the distance from which the outline is seen, the more offensive it appears. Thin, narrow belts enclosing parks are particularly objectionable, and except there is a special reason for entirely enclosing the property with trees, such should never be attempted, but openings left wide and free, allowing the eye to range as far as possible over hill and dale. Thus the owner of a comparatively small property may enjoy the same advantages as the owner of a gigantic park. When systematic planting is performed, due consideration should be exercised as to what the plants are to be when fully grown.—M. TEMPLE, *Caron House, Stirlingshire.*

LUCULIA GRATISSIMA.

LHIS plant is a great favourite with the ladies. It comes into blossom at the dull season of the year, which is one good quality. Another great recommendation is that it is of easy cultivation, being generally grown along with Camellias, under the treatment given to which it grows and does well. We find it to grow equally well planted against the back wall of a viney, neither the distance from the glass, nor the shade, appearing to affect it in any hurtful way. During the last few years our plant so treated has grown and flowered remarkably well, and now (February 1) it is just beginning to unfold its blooms, which will be cut as fast as they open.

The border in which this plant is growing is about fifteen inches wide, by eighteen inches deep, and consists of nothing but light sandy loam, but it receives copious waterings, and a good dressing with manure. Whenever the vines are being attended to it always comes in for a share in the way of manuring and watering; and it has plenty of the syringe as long as the heat is kept on for the vines, but after that its use is discontinued, unless it be to give an occasional washing with paraffin water, to keep it clear of insects. We have not pruned the plant since it was planted—no further indeed than what it gets by cutting off the flowers, and then only a few inches of wood are cut with the blossoms.—A. HENDERSON, *Thoresby.*

MUSHROOMS FOR THE MILLION.*

MTHE appearance of a second edition of this little work within a few weeks of its original publication attests the fact that it supplied a want which was felt. Though indoor culture is not wholly ignored, the book may be taken as being mainly a guide to the outdoor cultivation of this valuable esculent, for which purpose the instructions afforded are exhaustive. The author certainly does his best to prove that the crop from outdoor beds of Mushrooms is a highly profitable one, and his figures and arguments seem to be unimpeachable. One great merit of this admirable treatise is its lucidity, both as regards the method of producing, and then of disposing of the crops. July we are told is the best time for novices to begin collecting the necessary manure; in three weeks it will be ready for making the beds, and a week later these may be spawned; then after eight weeks' interval Mushrooms will appear, and the bed will continue productive for three months. As to the profits of growing Mushrooms for the market, on the plan laid down in this book, Mr. Wright shows from statistics that there may be realised a profit per acre of over £850 per annum, and that a still higher average profit—£950—is actually realised in the instance on which his calculations are founded.

To show the style of the book we quote a page or two on the important subject of preparing the materials for the beds:—

“ In preparing manure for Mushroom beds, two what may be termed extreme practices have been more or less generally advocated, and one of them has been extensively adopted. These practices will be mentioned in order that they may be avoided, for both are faulty. The first and very common plan is to gather horse droppings from the stables daily, excluding all straw from them. By this mode, if there are few horses, a considerable time elapses before sufficient material is obtained for a bed. In the meantime the droppings are spread as thinly as possible in a shed, and at least a portion of them become so dry that there is little virtue left in them; and even if the mycelium spreads

* *Mushrooms for the Million, Illustrated*, a practical Treatise on the cultivation of the most profitable outdoor crop known. By John Wright, Assistant Editor of the *Journal of Horticulture*. London, 1883. pp. 93.

through the beds the resulting crops are light, the Mushrooms small, and the gatherings few. On this old exhaustive process of preparing the manure, Mr. Gilbert, of Burghley, a most successful grower of Mushrooms, both in houses and in the open air, remarks with great force, 'To gather horse droppings, then lay them in a shed, dry them and turn them till there is no strength left in them, and then to expect Mushrooms, is to me something like madness.'

"If, on the other hand, droppings are plentiful, and enough is gathered in a short time for use, the material after sundry turnings is formed into a bed. In the majority of cases the heat is generated quickly and violently, and very frequently holes are made all over the bed with a dibber to reduce the temperature, which holes also serve as receptacles for lumps of spawn when the heat has subsided. This is not a sound mode of procedure, and if productive and long-lasting beds follow, it is more the result of chance than of good management. The only really satisfactory reflection in connection with such beds is, that it is somewhat difficult to prevent Mushrooms growing when good spawn is plentiful, and therefore when similar spawn is placed in a suitable medium good crops are easily produced.

"The last-named system is unsound in two respects. First, it is in the nature of fermenting materials that heat quickly and violently, to cool rapidly and suddenly, the inevitable result being that the bed is at first far too hot, and the means taken to cool it deprives it of its virtues—ammonia—and it is afterwards too cold for the requirements of the crop, and the Mushroom supply, if a supply follows, is necessarily of short duration. Secondly, when spawn is inserted in a smooth hole made with a dibber, and consequently tapering to a point, it is impossible that an angular substance can completely occupy the space that has thus been provided. There must at least be a cavity below the spawn, and there vapour, not always sweet, accumulates and prevents the growth of the mycelium. Much experience has shown that cultivators have too often to depend on weak and inferior spawn, but the same experience has also shown conclusively that much good spawn has been spoiled by the practice indicated.

"This ancient, tedious, and elaborate mode of collecting and preparing the manure is wrong in principle: still it may be urged that many good Mushroom beds have resulted from it. No doubt this is so, but failures have been still more numerous, and any practice that produces more blanks than prizes is essentially faulty. The evils of overheating incident to the above process have been frequently mitigated and sometimes averted by mixing soil with the manure, and other methods that are known to cultivators; but it is not for these, the few, that these remarks are intended, but for the far greater number—those, on the one hand, who know a little about the subject of Mushroom culture, but not enough for ensuring good beds always, and on the other that still greater body who know nothing about the practice, yet who have the means at disposal, and only need the skill for producing crops of great value. The object is to afford sound guidance for these, by first stating errors, that they may be avoided, and then submitting instructions as plainly and clearly as possible that they may be followed with a fair prospect if not an absolute assurance of success accruing.

"The next practice for avoidance is what may be termed the rough-and-ready one of first placing the manure, short straw and droppings, in a heap to heat, and when fermentation is brisk turning it over once or twice at the most, and then forming it into beds. Even if good crops of Mushrooms have followed, the practice is notwithstanding unsafe, and the material must have been specially sweet to begin with by previous fermentation and disturbance. The mycelium of the fungus will not permeate an impure medium. No plant requires purer and sweeter fare than the Mushroom does. Some other kinds of fungi will luxuriate in the most offensive matter, indeed such is essential to them, but this is certainly not one of them. If the manure of which a bed is made is in the slightest degree repulsive to the operator it will undoubtedly prove detrimental to the crop he is hoping to secure. So dainty is the Mushroom that it selects the healthiest, sweetest pastures for its home, and even soil that contains fresh manure is unsuitable for surfacing the beds. Avoid then, on the one

hand, the old, over-dried straw-excluding dropping system, and on the other the use of rank materials resulting from insufficient turning and sweetening and over-haste in making up the beds."

Having thus pointed out how not to do it,

the author proceeds to explain the proper course to be followed to sweeten the materials, and to bring them into the right condition for making up the bed, all which and much more to his advantage the reader will find on consulting the pages of the Manual.—T. M.



CYPRIPEDIUM GODEFROYÆ. (See p. 38.)

CYPRIPEDIUM GODEFROYÆ.

WE are indebted to M. Godefroy-Lebeuf, of Argenteuil, for the use of the accompanying illustration of a new Lady's Slipper introduced by him, and of which a full account of the vicissitudes which befel the plants is given in *L'Orchidophile* (No. 31, p. 830). The stock after undergoing many reverses of fortune, such as the death of one collector, and the illness of another, involving the entire loss of the first batch of plants, arrived at last in a fair condition, and was just capable of yielding one flower from which the figure here given was made. The plants have now passed into the hands of Messrs. Veitch & Sons, of Chelsea, and will be offered by them.

Cypripedium Godefroyæ belongs to the same section of Lady's Slippers as *C. niveum* and *C. concolor*, and is to some extent intermediate between them, differing from them at first sight by the upper edge of the petals being reflexed. It moreover presents variations in the leaves as will be presently seen.

The plant is robust and free blooming, with ligulate oblong leaves, variable in size from four to eight inches in length, and from about one to one and a half inch in breadth, the colour in some plants a dark sombre green spotted with silvery white, and in others a bright green almost spotless, the under surface being equally variable, either almost wholly blood-red from the close set position of the red spots which cover it, or in other cases having but few scattered spots. The peduncle is robust and rises above the foliage; the sepals and petals are white or almost white, heavily bespangled with chocolate-coloured spots; the lip, which is that of *C. concolor*, is marked inside the pouch with pretty chocolate-brown spots, and outside with brighter spots, whose number diminishes towards the tip. The outer surfaces are equally bespangled with chocolate spots of a duller hue, and the whole flower is covered with very fine white hairs. The staminode, which recalls that of *C. niveum*, is beset with thousands of very minute spots.

This new *Cypripedium*, like *C. niveum* and *C. concolor*, is met with growing on calcareous rocks, which until 10 A.M. are shaded by the mountain on which it grows, but afterwards

till the evening it is fully exposed to the most intense sun, without any shade. The night temperature must consequently be very different to that of the day-time. For its culture, M. Godefroy-Lebeuf advises an isolated temperate greenhouse, frequent waterings, and a little chalk in the compost. The plant, he adds, is robust, and blooms very abundantly. The novelty, whose habitat M. Godefroy-Lebeuf has engaged not to divulge, for the present at least, is dedicated by him to his "dear wife," Madame Godefroy-Lebeuf.—M.

DESCRIPTIONS OF THE BEST CARNATIONS.—II.

CRIMSON BIZARRES.

WE resume our descriptions of the best Carnations (see p. 17) with the list of Crimson Bizarres, which form a very beautiful series:—

A. D. SOUTHGATE (*Dodwell*).—A seedling from Thomas Moore, c.b., but fuller than that variety, and with the crimson stronger. A distinct and fine variety. First bloomed in 1880, and sent out in 1882.

ALBION'S PRIDE (*Headly*).—One of the best of Mr. Headly's productions, and yet a desirable flower, though unequal to some of the seedlings which have sprung from it. It has a large, well-formed, and well-marked petal, of good substance, and fairly smooth. The colours also are rich, but like all things in nature its vigour wanes with age, and the force of young life, even of its own progeny, will soon push it from its pedestal.

BLACK DIAMOND (*Haines*).—Raised at Tapton from Ely's William Caxton, c.b. First bloomed in 1848. It is third amongst the oldest flowers of the class now extant, and shows very evident signs of increasing age. When first sent out it was a strikingly fine variety, rich in texture and colours, with a good white and a well-formed smooth petal. Now it occupies quite a secondary place.

CRIMSON BANNER (*Simonite*).—A variety which originated with my friend and brother, Mr. Simonite, and which has evidently a considerable infusion of the Milton blood in it, having plenty of colour, with a large, well-formed petal, but with narrower markings than quite accords with my taste. I believe Mr. Simonite, as with some others, has presented this variety to his friends; at any rate I have no record of its introduction in a more direct form to the floral community.

DR. CRONIN (*Dodwell*).—A seedling from Captain Stott, but much fuller and finer in form than that old variety. It is also richly marked, though the colours are not so deep in

tone as the parent, and it has a far better habit of growth. One of the 1879 batch sent out in 1881.

ECCENTRIC JACK (Wood).—Raised at York some ten or twelve years since, and thought some seven years back to be amongst the very best of the class. Latterly, however, it has much degenerated, and is now headed by several sorts to be hereafter described.

E. S. DODWELL (Hewitt).—Raised at Chesterfield, from Admiral Curzon. We have in this variety an illustration not only of the sportiveness in colour characteristic of the tribe, but of the departure from habit and colour of the grass of the seed-bearing parent—a departure far less frequent than change of colour in the flower, though far from being rare. Undoubtedly, one of the best c.b.'s in cultivation, and, though inclined to sport, likely long to remain so. The petals are large, finely formed, smooth, of great substance, and richly marked with deep crimson and purple. A good grower; somewhat early in bloom. First bloomed in 1878, and sent out in 1881.

GRACELESS TOM (Wood).—Raised at York some twelve or fourteen years ago, and in its youth one of the finest Crimson Bizarres possible to be seen; symmetrical in form, rich in quality, glorious of colour, and definite in marking; but, like all things of earth, even those most lasting, it has been transient in its beauty. From vigorous growth it has passed rapidly to the feebleness of age, and its glory has surely waned. Nevertheless, there is yet so much of the beautiful remaining that I think it worthy the exceptional treatment of permitting the plants to bloom once in two years only, this being the only mode known to me whereby its blooming powers may be sufficiently maintained.

GRACILIS (Dodwell).—A light c.b. of fine form and pleasing appearance. A seedling from Lord Milton. First bloomed in 1879; sent out in 1881.

HARRISON WEIR (Dodwell).—The best c.b. I have yet had the pleasure to offer to my friends. A seedling from Rifleman, c.b., but very distinct in colour, it rivals that variety in the excellence of its habit, form, quality, smoothness, definite markings, and substance. Is a vigorous grower, and has the further great merit of being a free seed bearer. First bloomed in 1879, and sent out in 1881.

JACK BUNSBY (Dodwell).—A seedling from Rifleman, c.b., very large and full of colour; fine for the home stage.

JOE BAGSTOCK (Dodwell).—Another seedling from Rifleman, c.b., large and full, and very glaring on the home stage. Classified by Mr. Turner as a P.P.B., but, in my experience, it is more generally a Crimson Bizarre. One of the 1879 seedlings.

JOHN HARLAND (Adams).—Raised by Mr.

Edward Adams, of Swalwell, Gateshead. “A fine flower, petal broad and smooth, outline good, and white extra, short only of bizarre.” This was the description given to me by Mr. Rudd seven years since, and he has good warrant for saying “white extra.” During the past season I had one of the finest flowers I ever saw for beautiful white ground and definite markings, and though, to some tastes, a larger proportion of bizarre and colour may seem desirable, I cannot feel or admit that flowers of the John Harland type, less full of colour, are without beauty of the higher order, or undeserving of our warmest admiration. First bloomed in 1873, sent out in 1875.

J. D. HEXTALL (Simonite).—A glorious flower—one of the best of the many grand productions of my friend; supposed to have been originated from Jackson's Captain Stott (as the mother plant), set with pollen from an unnamed seedling. Seven years ago I thought it the best c.b. in my collection; and it is yet, I think, one of the best six. In form, substance, shape, and smoothness of petals, pure white and rich definite markings, it can scarcely be surpassed. It is very dwarf in its habit of growth, with a leaf very unlike its mother parent; but these diversities of nature, amongst the most interesting of the incidents of seedling growing, so far from provoking dogmatic conclusions, will assuredly, I think, raise in every well constituted mind deeper reverence and veneration for the limitless powers of the Infinite. Sent out in 1874.

JOHN SIMONITE (Simonite).—Another of Mr. Simonite's excellent varieties. A seedling from Jenny Lind. Unfortunately, like its parent, it is somewhat hard in its habit of growth, and, save in a warm season, does not open kindly into bloom. But in its best state it is very fine, so glorious in its colours and definite in its style of marking. The petal also is large, well formed, of good substance, and the white ground pure and rich. Sent out in 1876.

LORD MILTON (Ely).—Raised from Wm. Caxton, c.b., and sent out in 1836. This is the oldest c.b. now on my list. For many years this variety held an undisputed pre-eminence. Now, however, Lord Milton has many rivals and some superiors, though even yet, despite an inclination to sport, which age seems in no way to check, it deserves cultivation. In its best character, indeed, Lord Milton leaves little to desire save it be size and a few more petals. It has a finely-shaped gently-cupped petal of good substance and smooth edge, the white ground clear, with rich and refined colours well distributed in distinct bold stripes. A good grower, compact in habit.

MARGUERITE (Dodwell).—A seedling from the above, following the parent type, but with lighter colour. A good grower. Sent out in 1882.

MASTER FRED (*Hewitt*). — The highest coloured c.b. I have yet seen, and undoubtedly the best of the high coloured section. A grand flower of full size, fine form, great substance, and perfectly smooth. A seedling from Captain Stott, set with pollen from Rifleman; the cross is very apparent both in grass and flower. First bloomed in 1879, and sent out in 1881. This variety has been the admiration and desire of every one who has been fortunate enough to see it, and season by season has grown more and more into favour. In 1880, at Manchester, it obtained the first, second, and third prizes in its class—a prize going to each flower exhibited; and in addition was declared the best bloom in the exhibition. Last year, at the same place of exhibition, a glorious flower, produced by Mr. William Slack, obtained the same award, and created quite a furor in the minds of the growers present. It has a fine habit of growth, but requires care in its management, as it not only is very susceptible to the attacks of green fly in the spring months, but is liable to shank off after blooming. Should this latter evil be suspected, the layers should be promptly piped.

MEPHISTOPHELES (*Dodwell*). — A seedling from Captain Stott; high coloured, and very attractive for the home stage, but its faulty ground will always forbid its rising to high rank. Sent out last autumn.

MILLIE (*Dodwell*). — A broad-petalled, lightly coloured seedling from Robert, c.b., which it somewhat favours, but has more substance and a richer white ground. Not a strong grower. Sent out in 1882.

MR. DANIELS (*Dodwell*). — A large full flower seeded from Stanley Hudson, with the definite marking and fine quality of that variety, requiring special care in blooming to save the calyx from splitting, but very fine if so guarded. First bloomed in 1882, and sent out last autumn.

MRS. GORTON (*Dodwell*). — A large-petalled, beautifully-formed flower, of exquisite white ground and quality, smooth and very definitely marked. A seedling from John Keet, R.F. First bloomed in 1879; sent out in 1881.

REV. F. TYMONS (*Dodwell*). — A seedling from Albion's Pride, c.b., but a very decided advance upon that variety. Smooth, of fine substance and form, and well marked with rich colours. First bloomed in 1879; sent out in 1880.

RIFLEMAN (*Wood*). — A glorious variety, undoubtedly. Seven years since Eccentric Jack was thought to be the better of the batch which had brought such fame to Mr. Wood, but the test of time has beyond all question proved Rifleman to be the leader; and not only is it the best variety bearing Mr. Wood's name, but it is equally beyond question one of the finest c.b.'s in existence. Of its parentage

we have no information, but few will doubt it has Falconbridge blood in its veins. A robust grower; and, being a free seed bearer, it will no doubt be the parent of a distinguished progeny.

ROBERT (*Dodwell*). — A seedling from Marshal Ney, c.b. A large, broad petalled flower, of fine quality, lightly marked with rich crimson and purple. Like its parent, its habit of growth is not robust. First bloomed in 1879; sent out in 1880.

SAMUEL BARLOW (*Dodwell*). — A variety from which I anticipate great things, though some seasons may pass before it is fully proved, my infirm health making it impossible for me to retain the stock in any quantity. Next after Master Fred, I consider it the finest of the high-coloured flowers, and it has with me been a worthy peer of that fine variety. A seedling from Shirley Hibberd, c.b., it has a petal double the width of the parent, slightly cupped, and richly marked with bright crimson and deep purple on a pure white ground. A good grower, but not prolific. A seedling of 1881, and sent out last autumn.

SALMON (*Gorton*). — Raised at Eccles. A seedling from Rifleman, with a beautifully-formed and grandly-marked petal, of great substance and very smooth, but not quite so full as the parent. A fine grower. First bloomed in 1879.

SHIRLEY HIBBERD (*Dodwell*). — A seedling from Albion's Pride, c.b. A full-sized, well-formed, and beautifully-marked show flower, somewhat sportive, and not a robust grower, but, in its best condition, fine. First bloomed in 1878, and sent out in 1880.

SQUIRE DODWELL (*Dodwell*). — A seedling from J. D. Hextall, c.b., very bright and smooth, but not so richly marked as that very fine variety. Habit of grass dwarf, but a free grower. First bloomed in 1879; sent out in 1880.

STANLEY HUDSON (*Dodwell*). — One of the best of the Albion's Pride batch of seedlings, unsurpassed for its fine white ground, beautiful form, and definite markings, though sometimes it is somewhat short of colour; size small; but it is a splendid grower, and has already produced seedlings of great promise.

THOMAS MOORE (*Dodwell*). — Another of the Albion's Pride batch, but marvellously diverse from some of its congeners, though springing from the same pod of seed. A full-sized, broad-petalled variety, richly marked with deep purple and pale crimson, on a pure white ground. A few more petals would be an advantage, but at its best it is a very telling flower, both for exhibition and the home stage. First bloomed in 1878; sent out in 1880.

THOMAS MOORE, JUN. (*Dodwell*). — A seedling from the above; an attractive variety, large, smooth, and very richly marked; but I



Wyedale Plum

Chromolith. Gevereyns Brussels

do not expect the younger to surpass the senior variety. First bloomed in 1882; sent out last autumn.

W. M. HEWITT (*Douglas*).—A sport from James Merryweather, R.F., shown by my friend and colleague in excellent character in 1882, up to which year it had been very constant to the sport. Last year some of the plants returned to their original Rose Flake character, as, in my experience, this particular variety had always done. Nevertheless, many remain, and as a c.b. it is very fine.

WILLIAM MURRAY (*Adams*).—Raised at Swalwell simultaneously with John Harland by Mr. Edward Adams. Described by Mr. Rudd, in 1877, as the best of the Newcastle c.b.'s, but longer experience inclines me to give the palm to John Harland. Nevertheless, it is a fine variety, with a broad smooth petal, and plenty of colour. First bloomed in 1873, and sent out in 1875.—E. S. DODWELL, *Stanley Road, Oxford.*

FREESIA REFRACTA ALBA.

AT the meeting of the Royal Horticultural Society on February 12, Messrs. Veitch & Sons, of Chelsea, exhibited a number of plants of this lovely Cape bulb. The flowers being pure white, blotched with yellow on the lower segments, and very fragrant, it is indeed a lovely spring flowering plant, bearing to be gently forced, and extremely valuable for cutting.

The best mode of cultivation appears to be one comparatively easy to carry out. The matter of a suitable compost is one of some importance; it should be made up of two parts loam, one part leaf soil, and one part peat, with the addition of sufficient silver sand to render the whole thoroughly porous. The bulbs may be potted at any time from August to the end of October, but certainly not later, as they begin to grow out very early, and should not be disturbed afterwards. When potted the pots can be stood in the open, under the shelter of a wall if possible, and for the first month at least may be plunged in cinder-ashes or cocoa-nut refuse. It is necessary to examine the plants from time to time, and as soon as they have fairly started into growth the covering should be removed; and if there are indications of frost setting in, the plants must be removed to a cold frame or a cold greenhouse, where they can have plenty of light and air. But little water is required until the grass-like foliage begins to appear; and then as the plants progress they must

have waterings as required, and a little weak liquid manure given occasionally will be found very beneficial.

If it is desired to have the plants in bloom early, they should be placed in a warm house as soon as the flower spikes are visible, but plenty of air is a necessity, and the forcing process should not be extreme, else the head of bloom may prove unsatisfactory.—R. DEAN.

THE WYEDALE PLUM.

[PLATE 606.]

WE believe this variety of Plum is but little known, but its excellence as a late ripening sort, would render it valuable as an addition to any collection. It was, we are informed, introduced to cultivation from Yorkshire by Messrs. Rivers & Son. We have seen it growing in Mr. Lane's orchard at Great Berkhamstead, but for the samples figured, and for much of the following information, we are indebted to Mr. G. Bunyard, of Maidstone. Of a diffuse style of growth, and with rather slender shoots, the Wyedale Plum is not unlike Rivers' Prolific in its habit, forming for the most part short-jointed wood with a few shoots running out to a considerable length; it is not, however, to be regarded as a robust grower. The leaves are rather small and of thin texture.

One of the great merits of this Plum is, that it is a good bearer, and another is that it ripens its fruit very late in the autumn—in October and November. Mr. Bunyard informs us that he has gathered fruit as late as November 9; that from which our figure was drawn was received from him on October 28, the sample being from an open standard, though he considers it would be quite worthy of a north wall. The tree is a fair cropper when allowed to grow naturally, but when root pruned and grown as a pyramid it bears much more freely.

Fruit medium size, roundish-oblong, very dark dull reddish purple, with a thin bloom. *Stalk* about half an inch long, set in a small but deepish basin, from which a shallow indistinct suture extends to the apex where the fruit is slightly depressed. *Flesh* yellowish or deep straw colour, transparent, veiny, parting freely from the stone. *Flavour* somewhat austere when raw, but excellent when cooked with a slight smatch of roughness. For cooking purposes indeed there are few Plums which are equal in quality to the Wyedale. In the figure the flesh is represented of a darker yellow than it appears in a fairly ripened fruit, the deep colour being attributable to the fruit having been kept too long, or not being sketched as soon as cut.—T. MOORE.

REGISTER OF NOVELTIES.

NEW FLOWERS.

CINERARIAS.—*Great Eastern*, a large stout flower, fully three inches in diameter, and of a bright crimson colour, extra fine. *Lottie Williams*, deep maroon purple, with a ring of light crimson round the disk, which is white; large, finely formed pip; 1st-class Certificate to both, R.H.S., February 12; J. James.

CYCLAMEN (*persicum giganteum*).—*Dame Blanche*, a beautiful pure white variety, of large size, great smoothness and substance, and perfect quality; 1st-class Certificate R.H.S., February 12. *Baroness Burdett Coutts*, a fine pure white variety, with very massive, smooth, flat, finely-rounded petals; broad, and highly attractive. *Crimson King*, a beautiful crimson-flowered variety, very bright and effective; large flowers, and very striking. *Mont Blanc*, with long, tall, somewhat spiral-shaped petals, narrower than those of the variety Baroness Burdett Coutts. *Rose Perfection*, remarkable for the size of its flowers, the colour pale pinkish-rose, with a crimson base. *Prince of Wales*, deep bright rose, approaching crimson, very large and fine; the foregoing from Mr. H. B. Smith. *Delicatum*, with long pure white smooth petals, the base delicate rosy pink, a beautiful and attractive variety, and wonderfully free; 1st-class Certificate R.H.S., February 12; H. Edmonds. *Cardinal*, rich deep bright crimson, very fine in colour and quality. *Rose Queen*, bright rose, with crimson base. *King of Persicums*, delicate blush, with pale purple base; pretty and pleasing; R. Clarke.

EPACRIS.—*Diadem*, flowers deep rose, three-quarters of an inch long, and set very thickly on the flower spikes; very fine and distinct. *The Premier*, soft delicate pink, a little broader in the tube than the foregoing; very fine and distinct; 1st-class Certificate to both the foregoing, R.H.S., February 12. *Her Majesty*, like the foregoing in general character, but pure white; very pleasing. *Rose Perfection*, delicate pink; very pleasing; Veitch & Sons.

NARCISSUS, *pallidus præcox*.—An extremely early variety, flowering in January; the sepals and petals nearly white, the mouth yellow; distinct and very pleasing; 1st-class Certificate R.H.S., February 12; Barr & Son.

PRIMULA SINENSIS, *Emperor*.—A fine salmon-carmine coloured variety, intense in hue, and with a pip of great size and substance; 1st-class Certificate R.H.S., February 12; H. Cannell & Son.

NEW PUBLICATIONS.

The BOTANICAL MAGAZINE (Feb.) contains figures of *Nymphaea alba rubra*, Caspary [t. 6736], the beautiful Swedish Water-lily figured in our volume for 1879, t. 487, under the name of *N. alba rosea*. —*Tilia petiolaris*, De Candolle [t. 6737], a beautiful hardy deciduous tree, growing 50 feet high, and cultivated in this country under the erroneous names of *T. americana pendula*, *T. alba pendula*, *T. argentea pendula*, &c. The under surface of the leaves, which are of the usual roundish cordate form, with an acute point, is beautifully silvered, and the flowers, produced in July, are deliciously fragrant. It differs from *T. alba*, the White Lime, in having five-lobed depressed-spherical glandular fruits, instead of smooth ellipsoid ones; but like that tree perfects seeds in this country. —*Pentstemon labrosus*, Mast. [t. 6738], a fine hardy perennial of tall slender twiggy habit, with narrow-tubed scarlet flowers; noted at p. 185 (1883) as *P. barbatus labrosus*; W. Thompson. *Gladiolus Quartianianus*, A. Rich. [t. 6739], a Tropical African plant found in Abyssinia, Angola, and the Zambezi country, related to *G. psittacinus*, but far less showy, the habit being more slender and the flowers smaller and less

brightly coloured; they are dull yellow, more or less streaked with red; flowered at Kew in October.

—*Masdevallia Schlimii*, Lind. [t. 6740], a remarkable Venezuelan Orchid, rather showy, with long-stalked obovate elliptic leaves, and erect slender scapes bearing about five mottled yellow and purplish-red flowers, with long yellow tails to the sepals, which are united into a short tube at the base; Sir T. Lawrence.—*Notospartium Carmichaeliae*, Hook. f. [t. 6741], a handsome New Zealand shrub, the Pink Broom of the colonists; it is a small ramous tree, with long slender weeping cord-like leafless branches, producing near the tops numerous many-flowered racemes of bright rosy-lilac flowers, succeeded by small torulose pods; Kew.

L'ILLUSTRATION HORTICOLE (1—2 liv.) contains *Trichocentrum porphyrio*, Rehb. f. [t. 508], a pretty dwarf Orchid, without pseudobulbs, having cuneate oblong acute leaves, and large flowers with cuneate oblong incurved brownish sepals and petals edged with yellow and a broad obtuse porphyry-red emarginate lip with a white anterior edge, a sulphur-coloured blotch on the disk and three purple lines behind.—*Camellia M. Raymond Lemoinier* [t. 509], one of the peony-flowered varieties, with the irregular-shaped flowers at first white venously streaked with rose, but afterwards becoming flushed with rose, the veins being still apparent; obtained from C. speciosa; M. Lemoinier.—*Anthurium splendidum*, Hort. Bull [t. 510], already noticed and figured by us at p. 52, of our volume for 1883.—*Costus igneus*, N. E. Brown [t. 511], a handsome stove plant with erect glabrous stems, elliptic acuminate smooth leaves, the upper ones subrotundate, and flowers set above the leaves, of a bright orange scarlet, and two inches across; Brazil; Comp. Cont. d'Hort.—*Primula sinensis* [t. 512], a group of novel varieties of the Chinese Primrose.—Model of a verandah [t. 513], a handsome structure designed by M. Lusseau.

GARTENFLORA (Jan.) figures *Gentiana Walujewii*, Reg. et Schmal. [t. 1140], a hardy herbaceous perennial, with lanceolate coriaceous 5—7 nerved leaves, and erect stems, bearing the numerous white flowers in terminal and axillary cymes; gathered in Turkistan by A. Regel; St. Petersburg Botanic Garden.—*Lycaste costata*, Lindl. [t. 1141], a Columbian epiphyte, with ovate conical pseudobulbs, bearing a pair of stalked lanceolate leaves, and pale yellow flowers with oblong lanceolate sepals, shorter petals, and a three-lobed concave lip which is fimbriolaciniate except at the tip, yellowish on the disk in front of the five veins which form the crest; St. Petersburg Botanic Garden.—*Hydrosme Teuzii*, Engl. [t. 1142], a very remarkable Arad from Tropical West Africa. The leaf stalk is nearly two feet in length, green, and terminates in a bidichotomous lamina, the segments of which are elongate linear-lanceolate acuminate. The spathe supported by a short peduncle, has a short ovoid tube striped inside with purple, and an oblong trisected lamina, green outside and dark purple within, from which projects the slender green spadix; Royal Botanic Garden, Berlin.

The JOURNAL DES ROSES (Feb.) contains a coloured figure of *Rose Souvenir du Rosieriste Rambaux*, a Tea Rose raised from seed by the late M. Rambaux, and premiated by both the Association Horticole Lyonnaise, and the Société d'Horticulture du Rhône. The figure shows a slender free-blooming variety, with small leaves, and loose medium-sized flowers of a very pale yellow, unequally tipped with bright carmine around the edges of the petals. It is said to be of vigorous growth, forming a very free and continuous flowering bush.

REVUE HORTICOLE (Feb. 1—16) gives the following coloured illustrations:—*Raisin Duc d'Anjou*,

a variety of grape raised by M. Moreau-Robert, of Angers, which is said to be analogous to the Ribier or Gros Ribier du Maroc (Damas Noir of M. Bouschat de Bernard) in foliage and berry, but ripens more quickly, in which respect it may be compared with the Frankenthal. The leaves are large, rather deeply divided; the clusters are above medium-size, conico-cylindrical, rather loose, on a long slender peduncle, the berries large, ellipsoid, about an inch long, with longish slender reddish pedicels, the skin rather thick, purplish black, the flesh firm, crisp, juicy, sugary, and of fine quality.—*Hedera Helix aurantiaca*, a handsome Ivy with bright orange red berries, which from the appearance of the leaves shown in the figure would appear to be that known in this country as *H. H. himalaica*.

REVUE DE L'HORTICULTURE BELGE, &c. (Feb.), contains a figure of *Azalea indica Charles Pynaert*, a very beautiful variety of the salmon-tinted white edged type. The flowers are large, and the colouring bright and clear which makes it very effective. It is a sport from Louisa Pynaert, and has flowers 4 to 5 inches across, perfectly regular, with broad reflexed segments and a central duplicature as if a smaller flower were set within the larger one; the colour is a salmony rose with white festooned border, and very heavily spotted with rich carmine on the upper segments. It is in the hands of M. Ed. Pynaert, who may be congratulated on the possession of so choice a novelty.

The BULLETIN D'ARBORICULTURE, &c. (Feb.), has a figure of the Belgian *Pear Charles Fréderix*, a seedling of Van Mons' dedicated by his sons to M. le Col. Fréderix. The fruit is large, elongate oblong, swollen at the summit, or often pyriform; the skin is smooth, yellow when ripe, dotted over with russet, and with blotches of the same about the eye and stalk; the stalk is short and obliquely inserted, the eye superficial; the flesh is white, fine, melting, very juicy, sugary, and with a delicious aroma. Ripe in October. The tree is vigorous and fertile, and is satisfactorily grown as a pyramid.

The GARDENERS' CHRONICLE (Jan. 26—Feb. 16) contains descriptions of *Anthurium splendidum*, Bull (p. 108), the fine S. American species with cordate bullate-rugose shaded sea green leaves figured at p. 52 of our last volume. The plant has now flowered, and has pale green peduncles 10—12 inches high, a reflexed lanceolate 5-nerved white pink-tinged spathe 4½ inches long, and a tapering golden yellow spadix of about the same length; W. Bull.—*Laelia Amesiana*, Rchb. f. (p. 109), a hybrid from *L. crispa* crossed with the pollen of *Cattleya maxima*; it has sheathed pseudobulbs 7 inches long, broadish leaves nearly a foot long, and a two-flowered peduncle; the sepals are narrow as in *crispa*, and together with the rhomboid wavy petals are white, and the lip is three-lobed, the side lobes blunt-angled pale mauve purple in front, and the expanded wavy middle lobe of the richest magenta purple continued backwards between the side lobes, the rest of the surface being yellow; Veitch & Sons.—*Pleurothallis elachopus*, Rchb. f. (p. 109), a neat little gem, allied to *P. flexuosa*, with short stems, cuneate oblong acute leaves, and a zig-zag raceme of bivalved light brown flowers; S. America; Sir N. de Rothschild.—*Cephalotaxus pedunculata sphaeropoda*, Masters (p. 113, fig. 23), a variety of *C. pedunculata* remarkable for its globular berry-like seeds.—*Laelia elegans picta*, Rchb. f. (p. 140), a good variety with light rose sepals and petals, spotted with darker purple, the dilated emarginate centre lobe and tips of the side lobes of the lip purple with the rest of the side lobes yellow; M. Harvey.—*Cypripedium Leeanum*, Rchb. f. (p. 140), the pretty hybrid from *C. Spicerianum* referred to at p. 28.—*Vriesia heliconioides*, Lindl. (p. 140, fig. 26), a handsome Bromeliad, of moderate

stature, with tufted ligulate-lanceolate green leaves, violet-coloured beneath, and a flower spike rising a few inches from the centre, and bearing two rows of boat-shaped bracts, which are of a brilliant rose-pink tipped with green, the flowers being pure white; it is known also as *V. bellula* and *V. Falkenbergii*; valley of the Magdalena; Comp. Cont. d'Hort.—*Saxifraga Burseriana major* (p. 141, fig. 27), a beautiful dwarf-growing Alpine, forming tufts of rosettes of close-packed three-sided pointed ciliate leaves, and large pure white flowers with rounded petals on short flower-stalks about two inches high; Austrian Alps; Messrs. Backhouse & Sons.—*Masdevallia pachyantha*, Rchb. f. (p. 174), an interesting Orchid allied to *M. affinis*, but larger flowered, the flowers yellowish-ochre coloured, with long tailed upper sepals; New Grenada; Shuttleworth & Carder.—*Saccolabium bellinum*, Rchb. f. (p. 174), an elegant little Orchid in the way of *S. calceolare*, but larger; it grows erect, has lorate obliquely-bidentate leaves, straw-coloured flowers blotched with dark brown, the white lip bearing mauve-purple blotches; Burmah; Low.—*Cypripedium Bullenianum anophthalmum*, Rchb. f. (p. 174), a variety in which there are no eye-spots on the petals, and no deep brown area under the green mouth of the lip; W. Bull.—*Laelia bella*, Rchb. f. (p. 174), a lovely beauty, a hybrid raised between *L. purpurata* and the old autumnal *Cattleya labiata*; it is intermediate in habit, but partakes more of the *Cattleya*; pseudobulbs 8 inches; leaves 12 inches long, purple beneath; sepals and petals light lilac; lip with a broad anterior wavy lobe of a glorious warm purple, two oblong ascending zones of light ochre white at the base, and two similar spots before the middle, as in *C. Warscewiczii*, the disk pale purple interrupted by light lines; Veitch & Sons.—*Aerides Rohanianum*, Rchb. f. (p. 206), a grand species, near *A. Reichenbachii*; it has very long leaves, and long dense spikes of flowers, with white-bordered rosy sepals and petals, and a white lip with two purple lines running down the centre, the middle lobe nearly rhomboid and bilobed, the side lobes cuneate and retrorse; the yellow spur is bent forwards, and bears numerous small purple spots; there are two horns, those on the anterior side being nearly hammer-like, dilated, and retuse at the apex, and under the horns a central keel; Eastern Asia; F. Sander & Co.—*Oncidium endocharis*, Rchb. f. (p. 206), a curiosity with pseudobulbs like those of *O. cheirophorum*, and slender racemes of flowers, which have cuneate-oblong acute sepals, broader petals, and a rhombic emarginate lip of a very bright orange colour; origin unknown; Low & Co.

TOMATOS AS AN OUT-DOOR CROP.

UT of doors Tomatos are a somewhat uncertain crop, their success depending very much on the kind of weather experienced during the summer. Some of the experimental trials made, as for instance that at Messrs. Sutton's, at Reading, have, however, proved successful, and these have gone to prove that Tomatos should be grown on poor soil, for if on rich soil they run too much to foliage; and that from the very first the plants should receive nothing like a check.

The seed should not be sown before the middle or end of February, thinly and in a brisk heat, for the sooner the plants are up

the better. They should be somewhat hardened off while in the seed pots or pans before being pricked off into store pans or boxes, and when they are about an inch high six or so should be put into a 4½-inch pot, placing the leaves close down to the soil; they are to be placed into a heat of 60° or 70°, and kept very moist. As soon as the plants have made four leaves they should be potted singly into 2½-inch pots, with the leaves close down on to the soil, as before recommended; then again placed in a temperature of 60° to 70°, and advantage gradually taken of sunshine in spring to shut up the house close with sun on them. As soon as the pots are filled with roots the plants should be placed in a frame where the heat is turned off by day, and by the beginning of April they should be shifted into 42-sized pots, using a little heavier soil; then stood close together in a moderately warm frame, shaded from too much sunshine, and occasionally sprinkled overhead. As the plants become established some will be found to grow stronger than others, and the foremost plants should be placed by themselves and have a cooler treatment, but still giving a little warmth as required. The first week in May the foremost plants should be stood on an ash bottom in a cold frame, a foot apart, shaded carefully from the sun, exposed to genial showers, and protected from winds, but lights should be placed over them at night. The best position for this cold frame is under a hedge facing the sun, and if the night promises to be cold a mat should be laid over the frame to supply the necessary protection. When what is termed "Blackthorn winter" is over, and genial growing showers fall, then the plants should be put out in ground that has been deeply dug or trenched three months previously, and thrown up loosely for thorough aeration, and, it is scarcely necessary to add, in a warm and sheltered spot.

The after-culture of the plants is not less important. The first crop of flowers should be encouraged to bear fruit, for these will form the foundation of the crop, so that as soon as flowers appear, all shoots and leaves that cover them should be removed, and after the fruit are set more leaves and side shoots will need to be cut away. The plants should be kept closely tied up to 3 feet or 4 feet stakes, which should

be put into the ground directly after planting, and when they reach the top of the stakes the top of the plants should be removed, with so much of the shoots as to leave little more than the main stem, a few leaves, and the fruit, thereby divesting the plants of all surplus growth and laterals.

Mulching at the roots must on no account be attempted, as this only adds to growth, which is not required. If the plants are fed too much the fruit are apt to crack. When planting out the plants should be placed as near the surface of the soil as possible; and it is found that frequent surface hoeings, carefully done of course, add much to root action.

Under such a system of culture as that laid down Tomatos may be had in the open air from about the second week in August until the middle of October, provided the weather is at all favourable. The earliest fruit at Reading was gathered on August 12. Should the weather prove treacherous in early autumn the stems of the plants can be cut off, and the partly ripened fruit finished off by hanging them up in some suitable warm place, where it can colour and become fit for table.—R. D. (*Gardeners' Chronicle*.)

DIEFFENBACHIA CARDERI.

THIS is one of a series of very fine ornamental-leaved stove plants belonging to the genus *Dieffenbachia* which have been introduced during the last few years by Mr. W. Bull, of Chelsea. They are plants of bold and striking habit, with the broad dark green leaves beautifully blotched or mottled or striped with white, silvery-grey, or yellowish-green; and any one of them may be accepted as a welcome addition to a collection in which it does not already exist.

D. Carderi, of which a woodcut is here given, is a very handsome form of the genus. It has oblong-ovate leaves, spreading or at length becoming somewhat deflexed, the ground colour of a rich dark green, boldly blotched and obliquely banded with white. The ground colour and the variegation are in this case about equally balanced, and the result is to render the plant exceedingly striking and attractive. It has won a first-class Certificate from the Royal Botanic Society.

Of other kinds of *Dieffenbachia* from the same source, there are *D. rev* and *D. amæna*,



DIEFFENBACHIA CARDERI.

which are marked by blotches of white; *D. regina*, which has most of the surface pale yellowish green with a dark margin; and *D. Leopoldii* and *D. splendens*, the latter blotched and the former without blotches, but both having a distinct and striking feature in the broad silvery band which runs down the centre of the leaf. All these are of a decidedly ornamental character.—T. MOORE.

WIRING WALLS.

MANY cultivators are much in favour of training their trees by means of wires, and we have more than once advocated the system for fruit-trees, especially on walls, while to save the expense of painting and the trouble therewith entailed, we have always advised the use of galvanised wire. After many years experience in different parts

of the kingdom we are not inclined to withdraw any statement which we have previously made in favour of wiring, but would caution those who are strangers to its use to beware of allowing the bark of the shoots to rest on, or even to touch the wires. It is through the neglect of this precaution that so many trees have suffered. A twist of the tying material round the wire and the ties crossed like the figure 8, generally suffices to protect the young growths, but to prevent large permanent wood from cankering a piece of cloth wrapped round the wire may be necessary.

When the shoots rest on rusty nails they invariably suffer from canker, but never so speedily or so severely as when resting on galvanised wires; and when outside, exposed to frost, under which conditions wall fruit-trees are always placed, they suffer more readily than if placed where frost does not reach them.

During the past season we purposely left a number of young shoots of various kinds of stone fruits, which were not wanted, to be tied to the wires without protection from the matting or other material used, and in each case the gumming and death of the shoots warned us not to risk on the wires unprotected any growths which we valued. The placing of the wires away from the walls is an evil which will soon be resented by badly ripened wood and small crops of inferior fruit. The wires should fit closely to the walls by means of studs, but be just loose enough to allow tying to be performed.—M. TEMPLE.

GARDEN GOSSIP.

THE Anniversary Meeting of the ROYAL HORTICULTURAL SOCIETY was held on February 12, and showed that there had been satisfactory progress made during the year. The financial position of the Society had improved, the revenue of the year having sufficed to satisfy the debtor balance carried forward from the preceding one, and to give a considerable surplus (£1,864) after paying or providing for the payment of every liability to December 31 last. It was explained in the Report that the partial curtailment of their enjoyment of the gardens by the Fellows was necessitated by the holding of the Fisheries Exhibition, and was therefore unavoidable, but it was believed that the gratification of the great majority of Fellows in the enjoyment of the large privileges which they enjoyed in connection with that Exhibition, afforded ample compensation. It was announced that arrangements had been made with the Executive Council of the International Health Exhibition by which Fellows should have substantially the same pri-

vileges as they enjoyed during the Fisheries Exhibition.

— **M**R. ANTHONY WATERER'S show of POLYANTHUS PRIMROSES was one of the prettiest features of the Royal Horticultural Society's meeting on February 12. They were a truly beautiful lot, and comatable by every one. The plants, as a rule, send up true Primrose flowers first; these are followed by umbels of flowers borne on stout stems that continue the bloom late into the spring. This is the habit of Mr. Waterer's plants; they are robust-growing, free blooming, and early flowering; many of the blooms are of great size, and all are singularly beautiful, while as to variety of colour and marking scarcely two plants in the large collection had flowers of identical hues. This fine lot of beautiful flowers, all in 48-sized pots, had been lifted from the open ground but a few days previously, and had been placed under glass to enable the blooms to be shown clean and fresh. The colours and markings were varied and beautiful beyond compare, and prettily set up behind an edging of hardy Heaths of various colours.

— **E**n aid of the Pension Augmentation Fund of the GARDENERS' ROYAL BENEVOLENT INSTITUTION the Council of the Manchester Royal Botanical and Horticultural Society has generously granted permission for a *fête* to be held in their garden at Old Trafford during the ensuing summer, under the management of Mr. Bruce Findlay. Several noblemen and gentlemen in the neighbourhood of Manchester have also promised assistance, by allowing their grounds to be thrown open for the benefit of the Institution.

— **T**HE FAIRY APPLE makes a delightful pyramid tree, and, when not pruned, bears profusely. The fruit is particularly good when stewed in syrup.—G. B.

— **F**ROM the *Revue Horticole* we learn that the interesting Conifer KETELEERIA FORTUNEI has produced fertile cones in the nursery of MM. Rovelli at Pallanza. The tree is about twenty-five years old, and measures 14 metres in height by 2 metres in circumference; the spread of the branches is about 10 metres; the bark is spongy, like that of the Cork tree. MM. Rovelli say that in none of its characters does it resemble the Silver Firs (*Abies*), nor the Hemlock Spruces (*Tsuga*), nor the Douglas Firs (*Pseudo-Tsuga*), except perhaps in the cones, which are somewhat like those of the *Tsusas*; but while the cones of the *Tsusas* are pendulous, those of the *Keteleeria* are erect. The tree has more of the appearance of *Torreya* or *Podocarpus Totara* as to the foliage, but the habit is different, and much more slender.

— **E**n answering the question, WHICH ARE THE PRIMARY COLOURS? the *Pottery Gazette* remarks that "the accepted theory of colour has at last found a disbeliever, and from having been considered an immutable fact it is now believed to be an unsound conclusion to hold that the three primary colours are red, yellow, and blue. The late Professor Maxwell has, we are told, proved beyond question that the essential primaries are red, green, and violet, so that a good many essays and elaborate works, as well as more numerous volumes of advice to painters, must be wrong from the very beginning. The admission of green into the notable trio is thus

accounted for: 'The difficulties which stood in the way of an accurate determination of the primaries were largely due to an element of confusion introduced by the use of pigments for the purposes of experiment. People who were accustomed to mix blue paint and yellow paint to produce green found it difficult to believe that the green of the spectrum was anything more than a mixture of the blue and yellow by which it was bordered; but an admixture of the blue and yellow of the spectrum does not produce green, but white. The blue light being a compound of green with violet, and the yellow light being a compound of green with red, the two together afford the three primaries, which combine to form white. In the paints, on the contrary, the material which appears blue absorbs and quenches red, while the material which appears yellow absorbs and quenches violet; so that only the green, which is common to both, is reflected unchanged to the spectator from the mixture.'

— WE learn from the *Gardeners' Chronicle* that the GOLDEN AUSTRIAN PINE (*Pinus austriaca aurea*) forms a most attractive object in the Kew Pinetum. Though perhaps at present hardly of so golden a colour as that assumed in mid-winter by the golden form of the common Scotch Fir, the younger growths of this variety of the Austrian Pine are a decided yellow-green. The appearance of the Kew plants indicates that it is a vigorous grower. It will no doubt be planted as a choice ornamental Conifer by many who have parks or pleasure-grounds, and as far as one can form an opinion from plants in a young state it will afford a striking contrast to the deep sombre green of the type, and prove valuable for planting for effect. Its introduction is credited to Mr. Mongredien, during the period when he carried on the Heatherfield Nurseries.

— THE BRIDAL WREATHS of the Athenians are said to have been of Hawthorn. At the present day, in our own country, the bridal wreath is almost entirely composed of Orange blossoms on a background of maidenhair fern, a sprig here and there of stephanotis blending its exquisite fragrance. Much uncertainty exists as to why this blossom has been so much worn by brides, but the general opinion seems to be that it was adopted as an emblem of fruitfulness. According to a correspondent of *Notes and Queries*, the practice has been derived from the Saracens, amongst whom the orange blossom was regarded as a symbol of a prosperous marriage—a circumstance which is partly to be accounted for by the fact that in the East the orange tree bears ripe fruit and blossom at the same time.

— PRUNUS PISSARDI is certainly one of the most remarkable hardy shrubs in cultivation, so says G. N. in the *Gardeners' Chronicle*. We know of none which can in any way vie with it in the splendour of its intense red foliage. The fruits, too, even in a young state, are of a deep red colour—a character which perhaps does not obtain in any other Plum. The species is still rare in gardens—indeed the only locality where we have seen it in this country is the Waltham Cross Nurseries of Messrs. W. Paul & Son—but its rare ornamental character is sure to make it a general favourite before long. A coloured plate of the foliage and a full description of the plant, together with the history of its introduction is given in the *Revue Horticole* for 1881. The specific name was given

by M. Carrière, in honour of M. Pissard (head gardener to the Shah of Persia), who sent the plant to France. It is found about Tauris, an important Persian town about 450 kilometres from Teheran, where it is still rare and much sought after on account of the bright colouring of the leaves, and particularly of the fruits, which are deep red even as soon as formed. Before being ripe these are used for the decoration of desserts, and are also eaten with salt; when quite ripe they are of fairly good quality. M. Carrière recommends that the plant should be used for enlivening beds or borders near dwellings, as its leaves, flowers, fruit, as well as the deep blackish-red shining bark, constitute a perpetual ornament. Its dwarf branching habit renders it a fit subject to be grown in pots, like Spiræas and other similar shrubs.

— WRITING in the *Journal of Horticulture* on the propagation of REIDIA GLAUCESCENS, G. R. referring to a recommendation to "insert cuttings of half-ripe wood under a bell glass" observes: "This does very well, but it takes some time to get up a stock unless there is a number of plants to commence with. I grow this plant very largely, and find the best way to increase it quickly is to turn out a plant that is root-bound, cut the ball right through the middle, using the roots cut off as cuttings. We cut these in pieces an inch long, and insert in seed pans. This is done in early spring, and they make handsome plants for table use by the autumn. They strike readily from the leaves, but I much prefer the roots. This elegant plant has done well with me treated in this manner."

— ON the question of growing ORCHIDS IN VINERIES, we find the following note in the *Orchid Album*:—In November last, when calling at the Grange, Stretford, we found two span-roofed Vineeries, in which there were good crops of Grapes, such as Muscat, Black Alicante, and others; and beneath these Vines, standing on the curbs, or suspended from the roof, was growing a collection of Dendrobiums, occupying the whole length of the two houses, and among them many fine specimen plants, with well-ripened bulbs, which promise well for bloom. D. Wardianum giganteum, Devonianum, crassinode, Ainsworthii, thrysiflorum, densiflorum, and nobile, are particularly mentioned. The plants had been grown in the same houses for some time past, and are found to succeed well with the treatment given to the Vines.

— THE President of the *American Pomological Society*, the Venerable Marshall P. Wilder, offers some very good advice to his own and other Societies on the question of NAMING OF FRUITS, advice which might very well be extended to the names of flowers so far as may be practicable. Here is the extract:—"In former addresses I have spoken to you of the importance of the establishment of short, plain, and proper rules to govern the nomenclature and description of our fruits, and of our duty in regard to it; and I desire once more to enforce these opinions on a subject which I deem of imperative importance. Our Society has been foremost in the field of reform in this work, but there is much yet to be done. We should have a system of rules consistent with our science, regulated by common sense, and which shall avoid ostentatious, indecorous, inappropriate, and superfluous names. Such a code your committee have in hand, and I commend its adoption. Let us have no more Generals, Colonels, or Captains at-

tached to the names of our fruits; no more Presidents, Governors, or titled dignitaries; no more Monarchs, Kings, or Princes; no more Mammoths, Giants, or Tom Thumbs; no more Nonesuches, Seek-no-furtherers, Ne plus ultras, Hog-pens, Sheep-noses, Big Bobs, Iron Clads, Legal Tenders, Sucker States, or Stump-the-World. Let us have no more long, unpronounceable, irrelevant, high-flown, bombastic names to our fruits, and, if possible, let us dispense with the now confused terms of Belle, Beurre, Calebasse, Doyenne, Pearmain, Pippin, Seedling, Beauty, Favorite, and other like useless and improper titles to our fruits. The cases are very few where a single word will not form a better name for a fruit than two or more. Thus shall we establish a standard worthy of imitation by other nations, and I suggest that we ask the co-operation of all pomological and horticultural societies, in this and foreign countries, in carrying out this important reform. As the first great national Pomological Society in origin, the representative of the most extensive and promising territory for fruit culture of which we have any knowledge, it became our duty to lead in this good work. Let us continue it, and give to the world a system of nomenclature for our fruits which shall be worthy of the Society and the country—a system pure and plain in its diction, pertinent and proper in its application, and which shall be an example, not only for fruits, but for other products of the earth, and save our Society and the nation from the disgrace of unmeaning, pretentious, and nonsensical names, to the most perfect, useful, and beautiful productions of the soil the world has ever known."

— WRITING of the CHOU DE BURGHLEY OR CABBAGE BROCCOLI, Mr. Gilbert, the raiser of this excellent new vegetable, says :—" Two years ago a great cook told me there was only one fault with Chou de Burghley—it was rather large; and if I could get them a little larger than Brussels Sprouts, and still of the same mild flavour, they would be better. On the first opportunity I crossed the Chou de Burghley with the Brussels Sprouts, and I now send you some of the produce of the seeds so obtained." Our contemporary (*Gard. Chron.*, xxi., 532) considers it remarkable that Mr. Gilbert should so soon have obtained the thing he wanted, the Sprouts received being " perfect little Cabbages 3—4 inches long, 2—2½ inches in diameter, and when cooked of the same mild delicate flavour as Chou de Burghley, and proposes to call the novelty CHOU DE GILBERT." In a subsequent letter Mr. Gilbert explains the origin of the new Sprout to be from Chou de Burghley fertilised by pollen of the Brussels Sprout, both parents being potted up in January and set in a cold cherry-house to get them into flower early, and of these six flowers only were opened up, and produced seed, which was sown in March last, and produced sixty plants, which proved somewhat varied in character, and would require careful selection before passing into the hands of the public. Brussels Sprouts are a delicacy even if more strongly flavoured than the Chou de Burghley, and if the new Chou de Gilbert is better flavoured, and proves equally hardy and productive, it will be a valuable acquisition. The early and constant supply of Brussels Sprouts through autumn and winter, which seems to have become a settled thing, is a great boon to Londoners.

— IN reference to CINCHONA CULTURE it is stated that the Republic of Guatemala has arranged with Mr. W. Forsyth, a well-known Ceylon planter, to select seed for 5,000,000 cinchona trees. Mr. Forsyth has ridden 1,000 miles

through Central America in search of the best sites. He states that the rapid increase in the number of uses to which cinchona bark is put, not only for the manufacture of quinine and as an ingredient in the substitute for hops, but also for various commercial purposes, has led President Barrios to try this experiment. It may be remembered that the cinchona tree was introduced into India in 1879 by Mr. Clements Markham, C.B., at the instance of the British Government, and the culture was so profitable that not only has the original investment of £150,000 been repaid, but the trees have been valued at £1,000,000. The cinchona tree requires a tropical climate and a plentiful rainfall; it could be cultivated with great advantage in Mexico, though it requires careful supervision; it is hoped that at least a portion of the vast amount of soil in Central America not now under cultivation may be utilised in this way. A planter who has devoted much attention to the cultivation of both the cinchona and the coffee-tree considers that both would grow well on the volcanic soil of Mexico at a certain altitude. The latest system for getting the cinchona bark to the best advantage is by means of suckers; cutting down the parent stem when it has developed strength, so as to strip it of the bark, the full nourishment is directed into the sucker, which in due time is sacrificed to another sucker. Guatemala and Mexico are both expected shortly to engage in cinchona culture to a large extent.—*Times*.

— REFERRING to the HEMLOCK SPRUCE FIRS, a group of beautiful, effectively striking, but too rarely seen Conifers, a correspondent of the *Woods and Forests* observes that the weeping Hemlock is the queen of evergreens; its sprays have a permanent beauty that we only see equalled, in a fleeting way, by some stray forms of common Hemlock. Not less striking in its way is the broad-leaved Hemlock, the dark, massive foliage of which contrasts finely with the golden Retinospora.

In Memoriam.

— DR. JOHN HUTTON BALFOUR, Emeritus Professor of Medicine and Botany in the University of Edinburgh, died at Inverleith House, on February 11, aged 76 years. The late Dr. Balfour, who was born in 1808, succeeded Dr. (afterwards Sir William) Hooker in the Chair of Botany in Glasgow in 1841. He was the friend and associate of Wight, of Falconer, of Dickson, of Greville, and a host of meinorable men, most of whom have passed away before him, but who were knit together by the common bond of sympathy in the shape of a love for plants. Their excursions, as a contemporary remarks, mid moor and mountain were fruitful, as a glance into many a herbarium testifies, and they formed the precursor of that series of herborising expeditions undertaken year by year by the Professor and his students with such zeal and with such advantage to the pupils. In 1845 the Chair of Botany in Edinburgh fell vacant, and Dr. Balfour was appointed to the office, and to the Regius-keepership of the Royal Botanic Garden. Ably seconded by the late Mr. James MacNab and Mr. Sadie, Dr. Balfour brought the Edinburgh garden to a high standard of perfection, and especially of practical utility, and the new Palm-houses, museums, and rockeries bear testimony to his zeal. The Edinburgh Botanic Society also profited largely by his example and constant aid. Some few years since, from failing health, Dr. Balfour resigned the active duties of the Professorship, being nominated Emeritus Professor.



W.H.Fitch del. New Tuberous Begonias

NEW TUBEROUS BEGONIAS.

[PLATE 607.]

ONE of the most remarkable features of modern gardening is the rapid development—improvement as we florists think—of certain special flowers, which seem at once not only to yield themselves up to the service of mankind, but also to achieve popularity. This development or improvement is not confined to one feature, but is alike evident as regards size, form, and variety of colouring, three very essential points in estimating the degree of perfection in flowers. The tuberous-rooted Begonias furnish a notable illustration of this fact; so do the Cyclamens, and we might add the Cinerarias, each of which, especially the two former, has undergone very rapid changes within the last five or six years, the changes effected being at the same time unquestionable improvements.

One great emporium for these Tuberous Begonias is at Messrs. Laing & Co.'s Stanstead Park Nursery, Forest Hill. Here they are grown by hundreds of thousands, the finer kinds being selected and named for special cultivation as specimen plants, and the others where of suitable character being reserved for bedding purposes. As pot plants for decorative purposes none are more brilliant and effective than this class of Begonias, which are also exceedingly telling where shown in large groups at exhibitions. As bedding plants in favourable positions they also do well, and bear up bravely against summer storms, which do them far less injury than they do to a bed of Pelargoniums. The varieties represented in the accompanying plate are the following:—

- Fig. 1. Orange Giant.
- Fig. 2. Stanstead Surprise.
- Fig. 3. Countess of Rosslyn.
- Fig. 4. Lady Brooke.
- Fig. 5. Golden Gem.

Mr. Laing has very kindly communicated as below the heads of the mode of cultivation which is adopted at Stanstead Park, and which is so successful that when exhibited their plants never fail to win a substantial reward:—

"The rapid advance of the Begonia in popularity is the result simply of its high merit as a decorative plant for the conservatory and the open garden. It is nearly hardy, and under some favourable conditions a considerable proportion of the varieties may be pronounced quite hardy; but it happens that to treat it as a thoroughly hardy plant ensures to the

cultivator no special advantage, and is attended with some degree of risk.

"Begonias possess this great advantage over many other decorative and bedding plants, that while the bulbs are dormant from the end of October to March, they require but little care and occupy no space that is of use. For example, we keep during the winter about 100,000 tubers in a greenhouse 40 ft. by 10 ft., and they occupy only about two-thirds of the space the house is capable of affording. After lifting the roots from the ground or shaking them out of the pots, they can be stowed away in any corner of a greenhouse or of a room where frost is not allowed to enter, and not in the vicinity of hot pipes or fire heat; they should be covered with cocoanut fibre or sand, which prevents their getting too dry, in a basket, box, or pot, and protected from drip if under a greenhouse stage. They will show signs of starting into growth in March or April, when they should be potted in a light fibrous mixture of loam and leaf mould with a little coarse sand added. They should not be forced, but allowed to 'come away' gradually, and shifted into larger pots in May. In June those required for Conservatory decoration require another shift, whereas those retained for bedding out require sheltering in frames until the season is fit for planting. The tubers make the finest growth and bloom when not specially pushed into activity, but left to start of their own accord. In this case they make a stronger and shorter growth, and the flowers show from the very base of the plant near the ground, and are backed up by a rich and healthy leafage.

"To manage these plants in a nearly natural way, it is sufficient to put the tubers into boxes filled with leaf-mould or sandy loam, and place these boxes on a dung bed in a frame, giving very little water, but taking care that the earth is moist enough to encourage the growth of roots. If much water is given until they are growing freely, mischief may follow, but they like water when they have made some degree of progress. It is a very simple matter to harden them off for planting, and for the latter operation the 1st of June is about the right date in the climate of London. The amateur who has no greenhouse or dung bed may nevertheless cultivate these plants with real advantage and enjoyment, for they may be wintered anywhere safe from frost, and may be started into growth under a common hand-light or in a box frame, and when planted out will take care of themselves.

"For early flowering and for the production of specimens for exhibition, it is advisable to employ artificial heat in order to lengthen the season. The stove answers perfectly in a general way, but any source of bottom heat with a moist healthy atmosphere will suffice to bring the tubers into a healthy growth. Instantly upon the leaves appearing they must be kept near the glass to prevent drawing and weak growth, and the watering must be carefully managed to ensure a sufficiency without excess. In the production of large basket specimens, it is necessary to begin early; and, as a matter of course, artificial heat must be resorted to in order to start and maintain the growth until the season is sufficiently advanced to render it no longer necessary. Basket specimens are the least of all prejudiced by a forcing treatment, as a long-jointed growth is in their case permissible.

"Specimens intended for exhibition will necessarily require careful management. They must be started in heat, but kept near the glass and have as much light and air as will be consistent with unchecked progress, the object being to secure not only

growth, which is a very easy matter, but health and vigour, which never accompany growth made in too hot and close an atmosphere. For all specimens, whether in baskets or pots, the best compost is one consisting of rough fibrous loam, leaf-mould, or thoroughly-rotted hops, and coarse silver sand. Very few stakes are required for the support of plants grown in this way on account of their robust growth and vigour of constitution. They are indeed tree-like in the stoutness of their stems and dignified carriage, and are most effective when grown on without stopping.

"Begonias may be raised from seed with the greatest ease, and those who sow any but first-class seed will be occupying themselves in the production of plants that will afford no pleasure. The sowing season is during January, February, and March. Sow in well-drained pots or pans filled with a mixture of leaf-mould and silver sand, carefully sifted to remove lumps and stones. The mixture should be quite moist, but of course not wet or pasty. Sprinkle the seed on a smooth surface with great care, so as to distribute it evenly and thinly. Cover it with a very slight sprinkling of dry silver sand, this being necessary to fix the seed, otherwise in moving the pans some of it might slip and run together. On no account allow the soil to get dry or every seed which has vegetated will be killed. This is the cause of much of the disappointment experienced in raising choice plants like these from seeds. The seed pans should be placed in a warm house and a moderate bottom heat will be useful to promote germination. Sheets of glass placed over them will prevent evaporation, which is detrimental, as the seed must never be dry, and watering is a delicate operation. However if there is need for water it must be given either by very careful use of a watering-pot with a fine rose, or by dipping. When the seedlings are large enough to be handled, prick them off into pans or pots, and repot as soon as they require it, that is, when they begin to crowd one another."

The following is a selection of varieties possessing the qualities most to be desired:—

CHOICE SINGLE-FLOWERED BEGONIAS.

BALL OF FIRE: brilliant fiery scarlet, intensely glowing; large compact flower.

DR. MASTERS: dark red crimson, immense spike, handsome habit; free-flowering and good for exhibition.

DR. SEWELL: bright glowing crimson, extra fine.

E. H. WOODALL: bright orange scarlet, large.

GOLDEN GEM: golden yellow, round flower, erect habit; foliage splendidly mottled.

HON. MRS. BRASSEY: intensely deep glowing crimson.

HON. AND REV. J. T. BOSCAWEN: deep glowing crimson, very large and perfect form, grand spike.

LADY BROOKE: dark rose shaded with violet-magenta, round flower, strong erect habit; extra fine.

LADY HUME CAMPBELL: light pink, free; extra fine.

MADAME STELLA: bright rosy pink, very graceful, large round flower, the finest of its colour.

MARQUIS OF BUTE: bright carmine crimson, large symmetrical round flowers; superb.

SNOWFLAKE: pure white, fine habit, very free; the finest of the whites.

CHOICE DOUBLE-FLOWERED BEGONIAS.

DAVISII FL. PL. SUPERBA: brilliant crimson-scarlet; a very grand variety; free habit.

DR. DUKE: brilliant scarlet, very large noble flower, perfect as a Camellia.

EUGENE LEQUIN: bright red, magnificent.

FORMOSA: bright rosy-carmine, white centre, crimson margin, extra large, free; good for exhibition.

GABRIEL LEGROS: fine sulphur-white, changing to yellow; resembles a compact rose, full and imbricated, profuse blooming; extra fine.

GLORY OF STANSTEAD: deep rose with white centre, very fine; a grand variety.

MADAME COMESE: satiny salmon-rose, enormous full flower, very floriferous.

PRINCESS OF WALES: white, very full and free flowering; good habit and large bloom.

QUEEN OF DOUBLES: rich rosy-crimson, resembling a Tea Rose, grand habit and profusely flowering.

ROBIN ADAIR: brilliant carmine-crimson, round petals, Camellia-shaped, free habit, superb.

ROSA MONDE: fresh rose colour, extra large; grand.

WM. BEALBY: deep velvety scarlet; grand.

—T. M.

THE WHITE TIGER-FLOWER.

THE Tiger-flowers, a small group of Irids, constituting the genus *Tigridia*, are extremely beautiful, as are most of the plants belonging to the *Iridaceæ*. Some of the *Tigridias*, as *T. Pavonia* and *T. conchiflora*, the former called also *T. grandiflora*, have long been known in gardens, where, however, their rich orange-scarlet, or yellow, curiously formed, and richly spotted flowers are none too often met with. The blossoms are unfortunately short-lived, lasting but one short day, but there is some compensation in the succession of them which is produced by healthy and vigorous plants.

From an account by Dr. Wallace, which accompanies a handsome coloured plate in *The Garden* (xxv. 6, pl. 421), it appears that the White Tiger-flower is an accidental seedling which originated with M. Hennequin, of Angers, some ten years ago. By him it was carefully fostered, and, after several narrow escapes of being lost, was distributed to the public. It first bloomed in this country in 1883, and great was the satisfaction when its lovely large creamy white flower burst upon the view. The flower is larger than that of either *T. Pavonia* or *T. conchiflora*, and it lasts a little longer in perfection. It is also slower in opening, as comparing the bud with that of *Pavonia*, one would expect it to open a day earlier than it does. It appears to be as robust as *Pavonia*. We are indebted to Messrs. Carter & Co. for the illustration.

T. Pavonia, which has bright scarlet flowers with orange markings, is a native of Mexico.

This has somehow acquired the title of *grandiflora*, and is often called *T. Pavonia grandiflora*. It is considered to be medicinal, and it was on this account that it was sent to Europe by Hernandez, physician to Philip II. of Spain, when he was employed by the Spanish government to inquire into "the virtues" of the plants of the New World. It was not intro-



TIGRIDIA PAVONIA ALBA.

duced into England till 1796. It has also been found in Peru, and Mr. W. H. Wallace, when travelling in S. America in 1878, collected a form of *Pavonia* in the vicinity of Bogota. There the flowers attained a larger size, and much deeper colour than we are accustomed to see here, but the bulbs brought home by him produced flowers which showed no appreciable difference from those of the ordinary form.

T. conchiflora is also a native of Mexico, whence it was introduced in 1825. It is sometimes called *T. speciosa conchiflora*, and is a smaller and more tender species than *Pavonia*, bearing yellow petals with chocolate markings. There are several varieties of this plant, which is found in several shades, from citron almost to orange.

"Tigridias," writes Dr. Wallace, "succeed best on warm light soils, and when planted should have a liberal supply of sand, to prevent any water from lodging about them, of which they are very impatient. Though hardy in some favoured places, it is best to lift the bulbs in November, and after carefully drying them, to store them in some cool dry place for the winter; protected from frost, and

to plant them again in March. Great care should be used in drying them, for if this operation be carelessly performed, the bulbs rot off at the base, and the stock becomes woefully small."—T. M.

DESCRIPTIONS OF THE BEST CARNATIONS.—III.

IN the descriptions of choice Crimson Bizarre Carnations given at page 38, one or two errors have crept in. Thus under *Black Diamond* for "Tapton" read "Tipton," and for "it is third amongst" read "it is thus amongst." Under *Graceless Tom* for "surely waned" read "sorely waned." Under *Joe Bagstock* for "glaring" read "glorious." *Salmon* should have been "Saturn."

PINK AND PURPLE BIZARRES.

FALCONBRIDGE (*May*).—For some seasons past this variety has failed in my collection to produce flowers with a needful amount of colour, and consequently it has been dropped out of cultivation. But in the bracing air of the north it is yet one of the finest sorts grown. In its best form, it is in northern phrase "bad to beat." Large in size, of good form, smooth and good substance, colours rich, regularly distributed and strongly contrasted, white pure. First bloomed in 1848; sent out in 1851. A good grower.

H. K. MAYOR (*Dodwell*).—A large variety, and one of the very best of the class. Like Harrison Weir it is a seedling from Rifleman, but following in its habit another flower of Mr. Wood's—*Purity*, and undoubtedly of the same pedigree, though less full of colour. But although, like *Purity*, it is only lightly bizarre, it is glorious for the beauty of its colour, and the distinctness of its markings. First bloomed in 1879, and sent out in 1881.

JAMES TAYLOR (*Gibbons*).—A large petalled flower, and good growing variety, raised in the neighbourhood of Nottingham about twelve years since. The flower is redolent of colour—a peculiar tint of pink or salmon, and also in bizarre; the white ground is good, the substance fair, and the edges of the petals smooth. But it is not sufficiently refined to give it a place in the first rank, as I estimate first rank.

MISS HENDERSON (*Dodwell*).—A seedling from Eccentric Jack, with the delicate colours and distinct markings of Sarah Payne, on a ground of great purity. Flower large and very smooth. It will carry three blooms with advantage. A good grower, though the habit of grass is stiff like its parent, and not prolific. First bloomed in 1879, and sent out in 1882.

MRS. ANSTIES (*Dodwell*).—A seedling from Stanley Hudson, remarkable for its fine form and rich and definite markings; the pink bright, the purple rich and deep; smooth and of great substance; size small. A good grower. First bloomed in 1882, and sent out last autumn.

MRS. BARLOW (*Dodwell*).—A seedling from Phidias (Wood), c.b., with the definite markings of the parent, but with far more refinement. Flower of fine form, of great substance, and very smooth; habit excellent. First bloomed in 1881, and sent out in 1882.

PURITY (*Wood*).—A large flower of the finest form, and beautifully marked with light pink and deep purple, one of the Eccentric Jack, Graceless Tom, and Rifleman batch, which will long keep Mr. Wood's name on the tongues of florists, though in this variety, as with Eccentric Jack, the debility of age is becoming apparent.

SARAH PAYNE (*Ward*).—"Well named after a lady, for it is, indeed, delicacy itself. For refined texture and colour it leaves nothing to be desired. Well done, and at its best, it would grace the finest stand of flowers imagination could paint. The petal is of medium breadth, and very smooth; colour delicate, sometimes deficient of bizarre, but always rich; white exquisite. Rather a delicate grower. Originated at Woolwich by its raiser, a well-known veteran florist, from Puxley's Prince Albert, crossed with pollen from Count Pauline. First bloomed in 1845; sent out in 1847." This was my description in 1853, and it is pleasant to know, though its raiser has long gone to his rest, the variety yet lives, and fully supports its old renown. In its way, I believe, as with Admiral Curzon, a variety one year its senior, it will never be surpassed.

SIR GARNET WOLSELEY (*Hewitt*).—A seedling from Mayor of Nottingham, p.f. A flower of great refinement and beautifully marked. Form fine, petal smooth, of great substance, and excellent white ground. First bloomed in 1879, and sent out in 1881.

SQUIRE LLEWELYN (*Dodwell*).—One of the best of my seedlings. It originated from Albion's Pride, and is a full sized large petalled flower, richly marked with deep pink and purple on a pure ground. Habit of grass robust. A seedling of 1878, and sent out in 1881.

SQUIRE PENSON (*Dodwell*).—Another of the Albion's Pride batch, but very different indeed from the variety just described, having far less colour. But it is a lovely flower at its best, smooth, finely formed, well marked, and of great substance, with an excellent habit. First bloomed in 1878, and sent out in 1881.

TOM FOSTER (*Dodwell*).—A seedling from J. D. Hextall. First bloomed in 1881; sent

out in 1882. A fine flower, thin, but with grandly marked petals of fine form and substance. A splendid seed bearer.

T. S. WARE (*Dodwell*).—A seedling from Thomas Moore, c.b., but fuller and lighter in colour than the parent. Petal well formed, smooth, and of good substance. First bloomed in 1881, and sent out in 1882.

UNEXPECTED (*Turner*).—A beautiful variety; apparently seeded from some one of the fine flowers of Mr. Wood's, sent out by Mr. Turner. Petal broad, smooth, of good substance, and richly marked; white pure. A good grower, but very sportive. Mr. Jas. Douglas informs me he has been obliged to drop its cultivation from its perversity, and for two seasons in succession the plants sent me ran. Of late, however, it has been far more constant. Sent out, I believe, in 1877.

WILLIAM SKIRVING (*Gorton*).—Described by Mr. Turner, who distributed the stock during the past autumn, as a "large flower of grand quality, good white, and the colours very evenly distributed, extra fine." The description by no means exaggerates its merit. Raised by Mr. Richard Gorton, of the Woodlands, Gildabrook, Eccles, from Rifleman, c.b., it has with me constantly been the equal of that grand variety, with even a finer form. In Mr. Gorton's hands I have seen it a rich c.b. as well as a delicate P.P.B. With me, as with Mr. Douglas and Mr. Turner, the softer air of the south turns the colours to a beautiful pink and purple, but whether as a c.b. or P.P.B., it is equally beautiful. First bloomed in 1879, and sent out in 1883.

PURPLE FLAKES.

DR. FOSTER (*Foster*).—Raised at Todmorden from Jackson's Squire Trow (in its best days a good useful variety), which it follows with some slight variations in its habit of growth and colour, but is incomparably better in its white ground, which is perfection itself. Petal broad and smooth, slightly cupped (unlike its parent, which has a tendency to reflex), of full size, and a good grower, it would be at the head of the class, but for one unfortunate defect—it is generally insufficient marking. Nevertheless, and despite this serious drawback, it is a variety of great excellence, and such as will please a taste refined to fastidiousness. Early in bloom.

EARL OF STAMFORD (*Addis*).—Raised at Wolverhampton from the same parent as the above, it is yet very distinct in character, generally coming with plenty of colour, and fairly distributed, but is rarely seen with the fine quality and white ground of Dr. Foster. Nevertheless it is a useful variety, though now showing the effects of age; sent out in 1856.

FLORENCE NIGHTINGALE (*Sealey*).—Raised I believe in the neighbourhood of Bristol, and

well named after a lady whose life of self-sacrifice and devotion to duty has made her name a household word, and enshrined it in the hearts of a grateful people. A most beautiful variety, if not the best, certainly the most distinct of its class. A glorious flower truly, full sized, well-formed, smooth, of fine substance, and definitely marked with a deep imperial purple on a ground of perfect purity, it is the admiration of all who see it. Habit of grass compact; a good grower, but not prolific.

JAMES DOUGLAS (*Simonite*).—Raised from an unnamed seedling crossed with Mayor of Nottingham. This is indeed a grand production of my friend and brother. Sent out in 1876. Mr. Simonite, in his modesty, has ascribed the leadership of the class to Dr. Foster (as it is developed in the North, with its colour-giving air), but with me, and also with Mr. Douglas and other friends in the South, James Douglas is unquestionably the better variety. It is of the largest size, has a superb white ground, and is beautifully marked with a bright purple. Petal large, smooth, and of great substance. A good grower. Like most of its class it is early in bloom.

JUNO (*Bailldon*).—Raised at Halifax. A flower apparently of the Squire Trow family. A fine variety, having a well-formed petal, with a clear, rich white, and well defined, and well distributed markings of bright purple. A good grower, and early in bloom. Sent out in 1858. Shown by Mr. Turner at the Slough show in extra fine condition last season.

MAYOR OF NOTTINGHAM (*Taylor*).—Sent to me by the late Mr. James Taylor, of Sneinton, near Nottingham, in the autumn of 1857, as a seedling, then first bloomed, for trial. Mr. Taylor was not certain of its origin, but I have little doubt it was a cross between Meynell and Lord Byron (*Taylor*), or some of the varieties originated from Meynell. As a seedling it was superb, leaving little to be attained, fine in form, stout in substance, distinct in the character of its markings, good white, good petal, and a good grower. Age has somewhat dimmed its beauties; but though sometimes too heavily coloured, it is yet fine, and being a good seed bearer, a most desirable sort. Early in bloom.

MAYOR OF OXFORD (*Dodwell*).—A seedling from the above, with lighter colour and somewhat more refinement than has been seen in the parent in these later years. Full-sized, well-marked, and well-formed. A good grower. First bloomed in 1881; sent out in 1882.

Premier (*Milwood*).—Raised at Derby, by my old gardener Milwood, some time before he became my gardener. First bloomed in 1837. In its day this was in my opinion the best of this very beautiful class, being rich in every

essential of a high-class flower; and it held this place long beyond the ordinary life (some twelve to fifteen years at the most) of a Carnation. But now Premier has reached the sere and yellow leaf, though I yet keep the variety, and by allowing it to bloom every second year only, am reminded of some of its past beauty.

SARAH PAYNE (*Ward*).—The Pink and Purple Bizarre sported to a P.F., glorious indeed in either character. Eight years ago a sport from this variety was sent to me under the name of Sporting Lass, but this sport was apparently occasioned by bad health, as the plants never thrived; the flower was poor both in colour and character, and after a season or two died. Five years ago, however, the strongest plant of my stock—and Sarah Payne to be good cannot be too robust—broke into a P.F., and the produce from this plant has kept me supplied since. It cannot, however, be pronounced constant, any more than the P.P.B. may be called constant, part of the growth every season having returned to the bizarre state, or sporting to rose and crimson. Therefore I consider the name should not be changed.

SQUIRE MEYNELL (*Brabbin*).—Raised at Yoxall Wood Lane, in the neighbourhood of Burton-on-Trent, and first bloomed and shown (then as a seedling) in 1831 or 1832, this is the oldest variety I grow, a veritable patriarch of Carnations. In its best days it was indeed a grand variety, and even yet will reward the patient cultivator with glorious flowers. It is a good grower, of good size, full, has a finely-shaped petal, good substance, fine white ground and rich colour—a dense purple when first opened, but changing as the flower ages to a beautifully clear lilac. To be seen at its best the plants must be strong; any therefore of weaker growth are stopped, and the energies of the plant being thus thrown into the grass, the strength needed is obtained for the following season. Very few indeed of the older varieties can be had fine without this indulgence.

SQUIRE TROW (*Jackson*).—Raised at Stakenbridge from Elliott's British Queen P.F., and sent out in 1847. This is another of the varieties which belong most to the past, and as, though it was a good useful flower, it never occupied a place in the very first rank, the attention of the cultivator may probably now more profitably be given to younger competitors for his favour.

SQUIRE WHITBURN (*Dodwell*).—A seedling from Mayor of Nottingham, first-bloomed in 1882, and sent out last autumn. "A fine addition to a limited class; the petals stout, broad, and smooth; the white pure, and the flakes of a rich clear purple, very distinct." My friend Mr. Simonite, when he saw it first in the collection at Loxford Hall, was dis-

posed as I am told to regard it as the master of the class, but though I consider it a very fine variety, I cannot claim for or assign such a place to it. That honourable post is in my opinion at present filled by Mr. Simonite's own flower, James Douglas.

TRUE BLUE (*Taylor*).—Another variety, beautiful indeed in its prime, but showing palpable signs of rapid decadence. Yet still I think it worth the extra attention needed, in watching for the pernicious insect pests, propagating by pipings, and resting it from bloom every second year, so admirable is the flower. An early bloomer.—E. S. DODWELL, *Stanley Road, Oxford.*

NEW FRUITS AND VEGETABLES.

TH E following resumé of the Novelties of 1883 from the *Gardeners' Chronicle* for which we had no space last month, may still be useful to purchasers.

NEW FRUITS.

The year 1883 will long be remembered as the "Apple year"; never on record has there been anything approaching to the extraordinary crop of this important and most useful fruit as that of 1883; never a season in which Apples have appeared in such variety, or in which so much attention has been directed or importance attached to the better cultivation and improvement of this chief of English fruits. If the list of novelties introduced—which it is our province here to notice—is not a very lengthy one, it is assuredly a good one; if we take those first that were honoured at the National Apple Congress, we have certainly some of the very highest merit. In *Grenadier*, which is a large conical-shaped fruit, of the Codlin class, with a pale yellow skin, and extremely handsome, we have an Apple that will, if we mistake not, be largely cultivated. *Bramley's Seedling* is a variety that has for some time enjoyed a high local repute in Nottinghamshire as a winter culinary fruit, and it is in all respects deserving of its high character. Greatly resembling this last is *Warner's Seedling*, from Mr. Warner, of Chelmsford, a variety altogether first-class. Mr. Penny's seedling, the *Sandringham*, is a large conical green-skinned culinary variety, of great excellence; and from Mr. Tyler, Hereford, we receive *Tyler's Kernel*, one of the most handsome of Apples, large, conical, highly coloured, and of good cooking quality.

Grantonian (Mann) is another cooking Apple that has received honours, although it is in our opinion only second-rate. As an early dessert Apple of the highest excellence *Mr. Gladstone* has this season secured the "premier" place, thanks to Messrs. Lane and others. This variety, although not exactly new, has never had its merits thoroughly recognised. It is decidedly the earliest, if not the best, and withal one of the highest coloured and prettiest of early Apples. Of other prominent sorts special mention must be made of *Golden Spire*, a truly beautiful pale yellow conical fruit for mid-season kitchen use. Messrs. Cranston also introduce us to the *Herefordshire Beaufin*, a dark red, medium-sized, flat Apple, stated to possess the merit of not decaying when bruised. Two local Cambridgeshire Apples deserve notice, viz., *Histon Favourite* and *Murfit's Seedling*, the latter a large pale green mid-season fruit, stated to be an extraordinary cropper. A very distinct variety named *Akero*, from Mr. Loney, of Gothenburg, attracted our notice, the skin a beautiful peach colour, the flesh white, sweet, and tender. In the *Revue Horticole* the following sorts are noticed, viz., *Double Bon Rammier* and *Calville Madame Lessans*, but not having been tested in this country we cannot speak as to their suitability for this climate.

Of *Pears*, there is little to be said during the past year, the season being specially unfavourable for them. In the *Revue Horticole* a variety of the *Duchesse d'Angoulême* type, named *Fondante Thirriot*, is noticed as being good in the November season. *Plums* were equally scarce, the only one of merit coming under our notice being *Rivers' Monarch*, a variety of the *Orleans* type, of good quality. In *Peaches* we have a new French variety, named *Belle Henri Pinant*, a strong seedling of the *Grosse Mignonne* section, stated to be very excellent; and *Alexander*, an American variety, as early as the *Princess Beatrice*, and of superior quality. A decided acquisition among *Strawberries*, the *Duchess of Edinburgh* (Brown), will be found of considerable merit, being large, of fine quality, and a great cropper. Several varieties of Continental origin also claim attention. *Raspberry Lord Beaconsfield* is a very fine

variety, well worthy of introduction. *Melons*, usually very plentiful, do not give us so much novelty. The *Hollanden Favourite* of Mr. Goldsmith will be found of high quality, and a good useful sort; and to those who aspire to monster and sensational examples we commend Mr. Rutland's introduction, *The Goodwood*, the fruits of which weigh from 20 to 30 lb., and which are, moreover, moderately good in quality. Amongst *Filberts*, Mr. Cooper's *Duke of Edinburgh* is a very large and fine variety, and is considered to be a genuine acquisition.

Amongst *Grapes*, which usually occupy the most prominent position, we can only notify the appearance of a variety named *Winter King*, from Mr. B. S. Williams. This, which has an ovate-shaped berry, not unlike the Black Alicante in appearance, but of superior quality, is stated to be a graft-hybrid, the result of grafting Gros Colmar on the Raisin de Calabre. Whether this will retain the character assumed, and prove permanently distinct, will require yet some time to properly determine.

NEW VEGETABLES.

The amount of positive novelty attainable amongst vegetables is at all times limited; gradual improvement and progression is, however, generally well manifested, and this has been the case during the past year. *Potatos* naturally occupy the first place. That Potatos have been vastly improved during the past ten years or so, is a fact that must be patent to every one taking the slightest trouble to think about it. True, we have the old Regent and the old Ashleaf with us still, and which in their way are sometimes unsurpassable, but what of others?—what of the Ashleaf, indeed, as compared with the recent introductions of Mr. Dean? His *Midsummer Kidney* is earlier than that variety, much larger, yields a better crop, is of better quality, and, above all its other merits, retains its good quality till late in the season. Second to this comes his *Cosmopolitan*. Mr. Ross's *Welford Park Kidney* is a very handsome white kidney, mid-season, a great cropper, and of excellent quality. Messrs. Perkins' *Snowdrop* is similar in appearance to *Snowflake*—the most beautiful of all the American Potatos—but quite distinct, and very superior in quality. *Clarke's Main-crop* is of the well-known *Magnum Bonum*

type—good and trustworthy. *Desideratum* of Smith is a faintly coloured pink kidney of good quality that promises well; and Mr. Hughes' *Beauty of Eydon* may be pronounced, as it actually proved, the best quality Potato of the season; it is a broad white kidney-shaped variety and a great cropper. Many other excellent varieties might be noted, but we have here confined ourselves to those which took first honours.

Amongst *Lettuces* we would direct attention to the *Green Unctuous* (*Verte grasse*) submitted by Messrs. Veitch, a close-hearted deep green Cabbage variety; also to Messrs. Vilmorin's white *Chauvigny*, another Cabbage variety with large heart, and extra good quality, standing the summer well.

In *Peas* there is not so much perhaps to chronicle as usual, still those there are are good. In Mr. Eckford's *Duke of Connaught* will be found a variety of the Champion of England type of some merit, and from amongst Mr. Laxton's very numerous crosses the *Walton Hero*, a tall-growing deep green Marrow, may be considered an acquisition. Other varieties attracting notice and deserving trial are Bliss's *Abundance* and the *Stourbridge Marrow*.

Amongst *Broad Beans*, Laxton's *John Harrison* is a grand variety, having extra large pods; fine for exhibition purposes. And amongst *Kidney Beans* *Haricot Flageolet Chevrier*, having the seeds green, and which remain green after being cooked, is worthy of note.

Amongst *Onions* the *White Globe* of Vilmorin, albeit totally distinct from the ordinary White Globe Onion, attracted some notice. The bulbs being of a very regular spherical shape, with a pure white skin, and remarkably firm and solid, were exceedingly handsome; they proved somewhat coarse, and they are found not to keep so well as is desirable.

Amongst *Turnips* the *Extra Early Milan Strap-leaf* has proved to be several days earlier than the Purple-top Munich, and is, therefore, a welcome and important addition. The *Spinach Monstrueuse de Viroflay* is a very large-leaved sort, and will be found to yield a much heavier crop than the ordinary variety.

Amongst *Vegetable Marrows* Muir's *Hybrid Marrow*, pertaining to the Custard section, is

of great merit, being distinct, of fine quality, and an extraordinary cropper. Amongst *Cucumbers* we have *Cardiff Castle*, a wonderfully prolific winter sort; *Sutton's Purley Park Hero* and others. And amongst *Tomatos* the number of new varieties—all good, if not distinct—is simply perplexing. The following may be relied on, viz., *Bowerbank's Prolific*, a large-fruited prolific sort, resembling *Trophy*. *Chiswick Red*, a selection from *Trophy*, but of an entirely different character, the fruits medium-sized, oblong, deep red, and borne in great abundance, a very handsome variety, *Henderson's Improved Orange*, is a very distinct and beautiful sort, the fruits smooth, round, bright orange, and of excellent quality. What of *Tomatos* twenty years ago in comparison with *Tomatos* of the present!

CEMENTED PLANT STAGES.

WHEN I rebuilt a portion of my greenhouses five years ago, experience had taught me the necessity of providing something more permanent than ordinary boarding for the benches, as it is well known that with the ordinary hemlock or pine boards benches will not last more than four or five years. All my new benches put up at that time, were made with ordinary roofing slates, with a covering of half an inch or so of cement spread over them. This gave strength enough to hold a boy of one hundred pounds weight. The bearers we used were of yellow pine. These benches cost only about twenty-five per cent. more than the ordinary board benches; they have now been in use for over five years, and look as if they would last for fifty years to come. Since then whenever any of our old front board benches have given way, we have always slates on hand to use in rebuilding; but in some of our wide middle benches, where it is necessary for men to walk on them, the slate is not strong enough, and on such we have adopted the plan of spreading an inch of cement over the wood, using two parts sand to one part cement, which soon hardens to be as solid as flagging.

There is no need of cementing the board benches until they have been in use two or three years, as they will not decay before that time; and besides, it is better to have the benches well seasoned before putting on the

cement, so that there will be little expansion or contraction. We have old benches that were cemented five years ago that are perfectly sound. Of course when such benches are cemented provision must be made for letting off the water. This is usually done by using double bearers every eight or ten feet, and cutting out a space of an inch or so of the boarding so that the water can pass through.

Any one by this process of cementing can preserve wooden benches ten years, and maybe longer. Those which we did five years ago are yet perfectly sound, and are in every way as satisfactory as our slate benches. Any old wooden bench showing signs of decay can be preserved in this way at trifling expense. Every bench in our greenhouses to-day is cemented either above the boards or above slating.—PETER HENDERSON, *New York (in Gardeners' Monthly.)*

LES FLEURS DE PLEINE TERRE.

WHAT the book entitled *Les Plantes Potagères* noticed at p. 34 of our last volume, is in reference to culinary plants, the volume whose title is above quoted is to hardy and half-hardy border flowers. Both are issued by the Messrs. Vilmorin-Andrieux et Cie, the well-known seed merchants of Paris. Of the work now under notice, a third edition, illustrated by nearly 1,300 figures of plants, has been published. The figures though small are for the most part very faithful, and give a good idea of the plants represented, while the descriptions embody all the principal points which the garden-botanist requires to be told, both as regards identification and cultivation.

To this valuable book of reference a supplement has recently been added, comprising the novelties of the last few years,* and illustrated by 175 new figures. It is prepared on the same lines as the original publication, and taken with that will be valuable to those who read French (in which language it is written) as a modern encyclopædia of the most interesting and ornamental of garden plants and flowers, mostly hardy, but embracing also some of the more popular and useful of the half-hardy and greenhouse class.—M.

* *Supplément aux Fleurs de Pleine, &c., &c.* Paris Vilmorin-Andrieux et Cie, 4, Quai de la Mégisserie. 1884.

Apple Lane's Prince Albert

W. H. Fitch del



APPLE, LANE'S PRINCE ALBERT.

[PLATE 608.]

WE have already figured this valuable kitchen Apple in our volume for 1875 (t. 406), but the fruit produced during the propitious season of 1883 has so far exceeded in size and surpassed in beauty of colouring the specimens formerly represented, and which were of the depressed or oblate form sometimes assumed by it, that we have thought it desirable in justice to the variety, which is a noble fruit and one possessing the highest degree of merit, to have another drawing of it made, from which the figure now issued has been taken.

To the account formerly given we may add from the experience of the last few years—some of them rather disastrous ones for the Apple crop—that it is a prodigious bearer. Young plants in the nursery quarters six to eight feet high were to be seen—whole beds of them, not here and there a tree—covered with fine apples from base to apex, and larger bush trees, row after row, in a large orchard, were literally borne down by the weight of fruit. It is some of these which are represented in our plate, which is by no means flattered, though of course such highly coloured samples only grow on the more exposed sunny parts of the trees. Mr. Fitch has made some attempt to show the clustered mode of bearing, but the space at his command was too limited to represent this feature so fully as we could have wished. The hardiness of the tree is another great point in its favour. We ourselves have seen in Mr. Lane's exposed orchard on the high ground west of the town of Great Berkhamsted, where Dumelow's Seedling (Wellington), and some other popular sorts had been killed or badly crippled by the unpropitious seasons of 1878—80, that the trees of the Prince Albert, which is largely planted there, have stood uninjured, and have annually borne heavy crops, this season enormous crops. It should here be mentioned that there are two Apples in cultivation bearing the name of Prince Albert. Our plate and the foregoing remarks refer to that known as Lane's Prince Albert, which was raised by Mr. John Edward Lane (now representing the firm of H. Lane & Son), from Russet Nonpareil, fertilised by Dume-

low's Seedling. This Apple, we are told, received its name on the occasion of Her Majesty and Prince Albert visiting Great Berkhamsted. It is now some years since it was introduced to the notice of fruit-growers, but it has year by year gone on increasing in popularity, as it became better known, and the trees have become more fully established.

Of its high quality as a cooking Apple, even so late as the middle of March, we can speak with confidence, having fully tested it. Though without the aroma looked for in a dessert fruit, it is at that season very pleasant eating, even when uncooked, but when properly cooked it is excellent—quite first-rate in quality, and to our taste far superior to that of its acid parent, though itself not wanting in a pleasant sharpness combined with an agreeable apple flavour, which is very refreshing to the palate.

The fruit is of large size and heavy weight, some of the specimens which passed through our hands a few days ago weighing $9\frac{1}{2}$ ozs. They are sometimes conical or ovate, with broad ribs around the crown, sometimes more depressed, inclining to oblate, and then generally less angular in the upper part. The skin is smooth, at the gathering season bright green, afterwards pale yellow, more or less, and sometimes heavily tinted with rich deep crimson on the exposed sunny side, often also streaked and blotched with deeper crimson on the flushed side, the streaky character being more apparent on the paler fruit. The eye is rather small, closed, set in a deep more or less angular basin, the calyx segments close, erect, with the tips recurved. The short stoutish stalk is set in a small deep roundish cavity. The flesh is crisp and juicy, agreeably flavoured, with a brisk but not excessive acidity, when cooked becoming tender, and having a pleasant refreshing taste. It is ready for use in October, the season for gathering, and continues plump and good till the end of March, or later if well kept.

No Apple deserves to be so largely planted, as with all the good qualities above mentioned, it is a prodigious bearer, both as a standard and as a bush tree. This is probably owing to the hardiness of the variety during the blooming period, in consequence of which the trees escape injury, or suffer but little from spring frosts. The proof of this lies in the fact that during the few late appleless years the trees at Berkhamsted have uniformly borne heavy crops.—T. MOORE.

REGISTER OF NOVELTIES.

NEW PLANTS.

ADIANTUM RHODOPHYLLUM, *T. Moore* (*Gard. Chron.*, N.S., xxi., 372).—A beautiful hybrid fern raised by Mr. Bause, and one of the most ornamental of Maidenhairs. The fronds are evergreen, triangular, tripinnate, elegantly spreading, about a foot long, the pinnae few pinnate or bipinnate, the upper undivided ones $1\frac{1}{2}$ inch long, and as well as the 1 inch pinnules rhomboid-trapezoid, and set on hair-like black pedicels; the margins are inciso-lobate. The sori occupy the apices of the lobes, but are much broken up so as to vary in form from round to reniform, oblong, or elongate reniform, the indusia being smooth and narrow. In aspect it is midway between *A. Victoriae* and the larger pinnuled forms of *A. tenerum*, and being free in growth and moderately bold in character, with a gracefully curving contour it will make a fine decorative fern, the more so as all the young fronds grow up of a brilliant tint of rosy-purple which lasts for a considerable time and then passes through soft coppery shades till the full green of the mature fronds is acquired; 1st-class Certificate R.H.S., March 25; R.B.S., March 26; Veitch & Sons.

BEGONIA CARRIERI, *Hort.*—A new hybrid variety said to be a cross between *B. semperflorens* and *B. Schmidii*, and exhibiting the characteristics of *B. semperflorens rosea* in a remarkable degree. The flowers are nearly as large as those of that plant, pure white, and produced much more plentifully. The foliage is roundish-ovate, of a bright cheerful green. Quite small plants appear to flower with great freedom; 1st-class Certificate R.H.S., March 11; H. Cannell & Sons.

BEGONIA LUBBERSI, *E. Morren* (*Belg. Hort.*, 1883, t. 13), a very handsome branched subshrubby species, with cylindrical green stems deflexed at the tips, and alternate, distichous, smooth, entire leaves, peltately attached to fleshy petioles, at the base of which are large ovate persistent bright red stipules; the leaves are narrow elongate oblong-rhomboïd, the upper and lower ends acute, dark green above and shining, with irregular oblong blotches of white between the primary veins, deep red on the under surface. The monoecious flowers grow in axillary nodding cymes, which are about six-flowered, the blossoms being of large size, white tinged with green. Of Brazilian origin, having been sent by M. Binot of Petropolis attached to a fern stem. It is allied to *B. argystigma*, but differs essentially in its peltate leaves with an acute upper lobe, and in the form and dimensions of its flowers; Brusells Botanic Garden.

CATTLEYA TRIANÆ SPLENDIDISSIMA, *Hort. Williams*.—A really splendid variety of this varied and beautiful Cattleya. The plant is of the usual habit, and bears freely its charming blossoms, having the sepals white and narrow as usual, and the petals very broad transparent white, while the lip was an intense dark purple magenta coloured fully to the fimbriated undated edge; 1st-class Certificate R.H.S., March 11; S. America; B. S. Williams.

CANNA LILIIFLORA, *Warscewicz* (*Flore des Serres*, x., t. 1055—6; *Rev. Hort.*, 1884, p. 132, with tab.).—An exceedingly fine variety, introduced by Warscewicz some thirty years since, but not sufficiently appreciated. It is a plant of vigorous growth, attaining 6—10 feet high or more when grown under glass. The stems are stout, erect; the leaves are large, museiform, oblong acuminate, of a tender green; and the flowers which are also very large grow in a short terminal raceme, the individual blossoms measuring 4—5 inches in length. The perianth is tubulose, terminating in petaloid lobes of which the three external are linear-oblong convolute, reflexed, tinged with green, and the three

inner ones straight and extended, recurved at the end, white, with a slight tint of yellowish green. The expanded flowers have a fine penetrating odour of honeysuckle. M. André.

CYPRIPEDIUM GODEFROYÆ, *Godefroy-Lebeuf* (*L'Orchidophile*, p. 830).—A fine new L. dy's Sl pper presumably from Eastern Asia, and closely related to *C. niveum* and *C. concolor*. It is robust in habit, with ligulat-oblong leaves, some green some spotted, and white flowers blotched with chocolate spots. A figure and more complete particulars will be found at p. 38.

DICHOPOGON STRICTUS, *Baker* (*Bot. Mag.*, t. 6746).—An interesting greenhouse herbaceous perennial, with a stout creeping rootstock, the root fibres of which bear fleshy ellipsoid tubers at the end. The leaves are grass-like, concave, a foot and a half long; and the stem is erect, taller than the leaves, terminating in a raceme or panicle of purple flowers, in the best forms an inch and a half across, having the three outer segments paler elliptic-oblong, and the three inner ones broader, obovate with three central ribs and an erose margin; they are scented like the heliotrope but fainter. It belongs to the group of Asphodels in the order Liliaceæ; native of South East Australia and Tasmania; Cambridge Botanic Garden.

DIEFFENBACHIA JENMANNI, *Hort. Veitch*.—A handsome dwarfish Araceous stove plant of the ornamental foliage class. The leaves are long and narrow for the genus, oblong-lanceolate in outline, of a peacock-green colour, with oblique elongate blotches parallel with the primary veins extending from the centre nearly to the margin, and mingled with smaller blotches over the surface. It is a most striking plant, and has been introduced lately from British Guiana; Veitch & Sons.

KALANCHOE FARINACEA, *Balfour f.* (*Gartenflora*, t. 1143).—A distinct and handsome stove succulent, belonging to the Crassulaceous order. The whole plant is covered with a mealy powder which gives it a greyish-white colour. It has stout erect stems, with thick fleshy opposite roundish-spathulate outer leaves, and terminal umbelliform panicles of numerous erect vermillion-scarlet flowers, whose perianth is tubular and about an inch long, with a spreading limb of short ovate lobes. Found in the island of Socotra by Dr. I. B. Balfour; Haage & Schmidt.

ONCIDIUM JONESIANUM, *Rchb. f.* (*Gard. Chron.*, N.S., xx., 781).—A pretty epiphytic Orchid, with shortish, terete, subulate, channelled leaves, and racemes of moderate sized flowers which have ciliate oblong wavy sepals and petals of a light ochre colour with numerous sepia brown blotches, and an elegant lip having small bright yellow auricles with a few brown blotches on the anterior edge, and a broad white subreniform bilobed blade with a few small brilliant purple blotches near the base, and a callus of two patellar bodies traversed by a strong keel that exceeds them in front, and spotted and lined with brown; Paraguay; Horsman & Co.

PRIMULA SAPPHIRINA, *Hook. fil et Thomson*.—A small-growing plant, with obovate spathulate obtuse pinnatifid-toothed leaves, with white hairs on the upper surface. The leaves form rosettes a quarter to half an inch in diameter. The flower scapes produced in spring are one to two inches high, the flowers sessile, nodding, of a bright or pale blue, scarcely so large as those of *P. capitata*, but of a darker colour; they are said to have a peculiar glandular disk, which almost covers the stamens and pistil; much like a small Androsace in habit. It is found in the Sikkim Himalaya at an altitude of 13,000—15,000 feet; whence it was introduced by Mr. Elwes; Edinburgh Botanic Garden.

TULIPA OSTROWSKIANA, *Regel* (*Gartenflora*,

t. 1144, fig. 1—2).—A neat and pretty hardy bulb, with dark-coloured bulbs, smooth three-leaved one-flowered stems, 8—10 inches high, glaucous narrow lanceolate undulated lower leaves, those of the stem being linear-lanceolate and channelled, and smooth peduncles supporting the medium-sized flowers, which have the perianth segments moderately spreading, elliptic acute, about two inches long, of a bright vermillion red with a small black angular spot at the base margined with yellow. It is allied to *T. Oculis solis* and *T. Korolkowi*, and was introduced by M. A. Regel from Eastern Turkestan to the St. Petersburg Botanic Garden.

NEW FLOWERS.

ABUTILONS.—The following new varieties raised by Mr. J. George are being distributed by Mr. G. Stevens, St. John's Nursery, Putney:—*Brilliant*, bright crimson-red, dwarf habit, yet freely branching; remarkably free, and an excellent decorative variety. *Cloth of Gold*, golden yellow, fine shape; good bold outline, very free, fine for pot culture. *Emperor*, claret crimson, large and very fine; one of the boldest and most striking of the new Abutilons; good habit, and very free. *Lustrous*, fine bright red, very showy and attractive. *King of Roses*, rich deep rose, bold; very fine, and remarkably free. *Scarlet Gem*, brilliant red, the nearest approach to a scarlet Abutilon; very dwarf habit, free blooming on quite tiny plants, small foliage, highly effective.

AMARYLLIS.—*General Graham*, a very fine variety, having flowers fully 6 inches across, perfect in form and of unusual substance; the colour a deep velvety crimson-red, remarkable for its size, substance, and depth of colouring; 1st-class Certificate R.H.S., March 11. *Ne plus ultra*, a marvellously fine variety, majestic in size, and splendid in form; fully 8 inches across, with broad, overlapping petals of thick texture; colour glowing orange scarlet; 1st-class Certificate R.H.S., March 11. *William Goldring*, deep scarlet crimson, a very fine and bold variety of great substance, and of excellent form; Veitch & Sons.

AZALEAS.—*Mrs. Alfred Heaver*, a free-flowering semi-double variety, small, almost pure white; compact growth, and makes a capital pot plant; 1st-class Certificate R.H.S., March 11; T. Todman. *Little Beauty*, a dwarf, small flowered, very free blooming form appearing to be mid-way between *A. amœna* and *A. indica*; the colour delicate rosy purple; raised by Mr. C. M. Hovey, U.S.A.; 1st-class Certificate R.H.S., March 11; Veitch & Sons.

CINERARIAS.—*Challenger*, a deep velvety purple self of large size and thick substance, but somewhat coarse in appearance; bold and very striking for its great size; 1st-class Certificate R.H.S., March 11. *Pollie Channing*, flowers of remarkable size, nearly 3 inches in diameter; there is a zone of white round the dark disk, and a thin broad band of rosy-magenta; 1st-class Certificate R.H.S., March 11. *Royal Standard*, a bright crimson magenta Self, large, bold, and striking, but with a tendency to become coarse; 1st-class Certificate R.H.S., March 11; all from J. James.

CYCLAMEN.—*Princess Ida*.—Delicate pink with rosy base, very pretty indeed; flowers large, finely formed, and freely produced; habit very good; 1st-class Certificate R.H.S., March 11; R. Edmonds.

PANSIES.—The following are Messrs. R. B. Laird & Sons' new Pansies of the Show and Fancy types offered for the present year:—

SHOW PANSIES.—*Claribel*, white ground, belted with rich violet-blue, dark blotch, extra fine. *James Lamb*, a very fine and smooth dark self of the best form. *Prince Leopold*, a very dark purple self of the finest form and substance. *Prince Teck*, white

ground, belted with deep violet-purple; dense blotch, fine form and best quality. *Sunbeam*, yellow ground, belted with rich maroon purple; extra fine quality. *Sultan*, yellow ground, with deep purple belting; a grand show flower.

FANCY PANSIES.—*George Ross*, dark maroon blotch, edged with yellow, upper petals purple. *Jessie Buddie*, crimson, black blotch, edged with yellow; extra fine. *John Simpson*, white, with dark velvet blotch, fine form. *Miss Ivory*, fine creamy white velvet blotch; extra fine. *Mrs. George C. Murray*, purplish crimson blotches, edged with yellow, upper petals rosy crimson, edged white. *Mrs. J. W. Bennett*, chocolate blotches, margined with light chocolate and yellow, upper petals yellow and violet purple, edged with white. *The Hon. Mrs. Baillie Hamilton*, purplish-chocolate, edged with yellow, upper petals yellow, edged with chocolate. *William Bennett*, dark maroon blotches belted with crimson, edged white, upper petals crimson. *William Dean*, black velvety blotches, edged yellow, upper petals violet purple, edged with yellow; extra fine.

POLYANTHUS PRIMROSES.—*James Douglas*, a large sulphur-coloured self, very fine pip and truss; good habit. *Princess Royal*, a hybrid variety, with large flat flowers, having a star-shaped yellow centre, margined with bright rosy magenta; 1st-class Certificate to each, R.H.S., March 11. Both from A. Waterer.

ROSES.—*Grace Darling*, a lovely hybrid Tea-scented variety, and perhaps one of the finest of the pedigree roses raised by Mr. H. Bennett; the flowers are large, full, and the petals much reflexed as in the case of *La France*, the colour is a pleasing salmon-pink, like that of Madame Lombard; a vigorous grower and very free; 1st-class Certificate R.H.S., March 11. *Mrs. George Dickson* (H.P.), a very strong grower, and an early, continuous and late bloomer; has always been mildew proof; flowers large, not too full; bright satiny pink, a new colour; opens very freely; 1st-class Certificate R.H.S., 1883. *Mary Bennett* (H.P.), a seedling from Baroness Rothschild, without the slightest stain of Tea; dwarf bushy and vigorous in habit, the wood large, short jointed, not very thorny; foliage large and handsome; flowers large and of beautiful form, opening well; petals very thick, round, and smooth on the edges; colour the same all through—a most brilliant rosy cerise, as bright as any rose yet produced; thoroughly perpetual; a very fine exhibition rose, and the best known H.P. for forcing under glass; has never yet produced a shoot without a flower, either indoors or out; 1st-class Certificate at Crystal Palace Rose Show, 1883; R.B.S., 1883; Manchester, 1883.

VIOLAS.—*Columbine*, white with broad margin of rosy lilac; distinct and very fine. *Evening Star*, rich rosy purple, upper petals lilac. *Harlequin*, lower petals rich purple, upper petals pure white; very fine. *Lady Abercromby*, white, fine bold flower; very free. *Lothair*, fine rich crimson; bold eye. *Northern Light*, pale lilac, distinct and very free. *Pantaloona*, fine rich purple, upper petals marbled with white; extra fine.

NEW FRUIT.

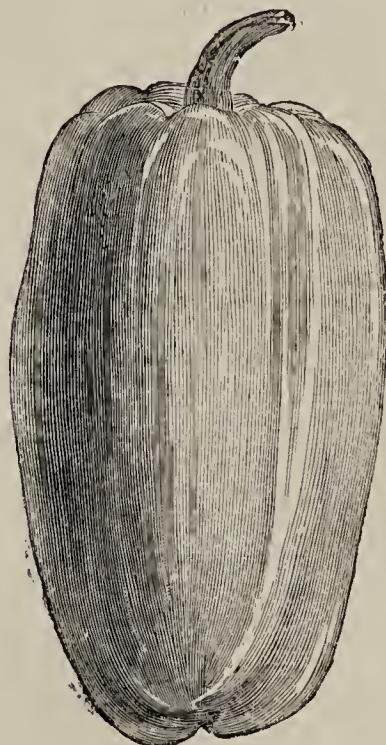
PEAR MARIE BENOIST.—This grand new Pear is a good bearer and a healthy grower. The fruit is large, obovate, unequal, the eye of large open calyx-lobes set in a moderately deep basin, and the stalk in a much shallower depression. The skin is green more or less covered with bronzy russet, the green appearing in small irregular confluent patches most evident on the shaded side. The flesh is buttery, and the flavour very rich, of the Marie Louise smack. The fruits will keep in some years until February. It is altogether a very fine variety.

NEW VEGETABLE.

CAPSICUM (MANGO-PEPPER) Golden Dawn.—A new Capsicum combining the decorative with the useful. It is designated a New American Mango-Pepper, and is similar in shape and size to the better-known Sweet Bell, a mild-flavoured succulent Capsicum, which is highly esteemed by many epicures. The fruit, which is oblong in shape and blunt-



ended, is of a bright golden yellow, thus forming a striking contrast with the red-fruited sorts. It is, we are assured, entirely free from the fiery flavour



so common in this family, and is altogether a great culinary acquisition. The plant, moreover, is of ornamental character, and therefore useful for the autumn decoration of the conservatory or greenhouse; Carter & Co.

NEW PUBLICATIONS.

LA BELGIQUE HORTICOLE (May—July, 1883, just published) contains coloured figures of the following plants:—*Schlumbergera Lindeni*, E. Morr. [t. 10—12], a handsome leaved Peruvian Bromeliad, with insignificant flowers. The leaves are fasciculate,

recurved, light green above, with both surfaces marked by transverse lines collected together in bands, those of the upper side dark green, and those of the under surface brownish red; the flowers are whitish, issuing from close-set green bracts on short branches along a tall straggling scape whose bracts are ornamented with green hieroglyphic markings; Peru; M. Linden.—*Begonia Lubbersi*, E. Morr. [t. 13], a distinct and handsome suffruticose kind from Brazil, with branched stems, and petiolate oblong rhomboidal distichous leaves which are dark green boldly blotched with white on the upper side, and carmine red behind; the flowers are large white, in axillary cymes; M. Lubbers.—*Cycas Seemannii*, A. Br. (p. 183), a new species from the Fiji Isles. It has a robust stem, growing 30 ft. high, with pinnate leaves, having spineless petioles, and 50—70 rather large flat, slightly decurrent leaf segments, glabrous on both sides; the fertile fronds bear 6—8 ovules with a somewhat cordate terminal lobe having fine crenatures in front; the fruits or nuts black, roundish, smooth.—*Canistrum roseum*, E. Morr. [t. 14—15], an interesting Bromeliad, with a dwarf rosette of spreading ligulate serrate leaves of a palish green, irregularly blotched with darker green, and from the centre, on a short stalk, a cyathiform involucre of rose-coloured bracts surrounding the small greenish-white flowers; Brazil; introduced by the Comte de Germiny.

The BOTANICAL MAGAZINE (Mar.) figures—*Kniphofia foliosa*, Hochst. [t. 6742], an Abyssinian species, the stoutest of the whole genus, and synonymous with *K. Quaritiana*. It is a stemless plant with a short rootstock, ensiform acuminate recurved strongly, inflexed leaves two feet long, and dense erect cylindrical racemes of bright yellow flowers sometimes tinged with red, and having much exserted stamens and style; H. J. Elwes, Esq.—*Picea ajanensis*, Fisch. [t. 6743], a fine hardy Spruce Fir from Japan and the Amoor region. It is an erect tree with horizontal rigid and densely-leafy branches, imbricated two-ranked compressed linear acute bright green leaves, glaucous beneath, and oblong-cylindraceous cones terminating the young branches, erect and purplish-red while young, and deflexed 1—2 inches long when mature. It has been called “the handsomest of all the Piceas.”—*Tinnea aethiopica dentata*, Hook. f. [t. 6744], a stove shrub with small ovate or oblong-obovate leaves, and few small scattered rusty-brown flowers; of botanical interest only; Kew.—*Citrus medica acida*, Brandis [t. 6745], the West Indian Lime, a spiny shrub with leaves 1—2 inches long, small flowers, and small subglobose rarely ellipsoid umbonate or mammillate fruit, containing a very acid pulp. According to Sir J. D. Hooker the pretty little Bijou Lemon of gardens is the same plant; Earl Ducie.—*Dichopogon strictus*, Baker [t. 6746], a pretty greenhouse herbaceous plant producing tubers at the ends of the roots, and having grassy leaves, a branching stem 2—3 ft. high, and purple asphodelaceous flowers in loose racemes which sometimes develop into panicles; native of Australia and Tasmania; Cambridge Botanic Garden.

The JOURNAL DES ROSES (Mar.) figures a very fine variety of the Jacqueminot type, named *Rose Comtesse de Camondo*, a vigorous growing sort with bold leaves, and large full cupped neatly imbricated flowers of a fine bright crimson shaded with carmine and vermillion. It was sent into commerce in 1880 by M. Lévéque.

REVUE HORTICOLE (Mar. 1—16) has coloured figures of a group of fancy Carnations with variously coloured flaked or streaked flowers; and of *Canna liliiflora*, an extremely handsome pure white tall-growing Canna with very large and fragrant flowers; from Veraguas; E. André.

GÄRTENFLORA (Feb.) *Kalanchoë farinacea*, Balf. [t. 1143], a handsome stove succulent of the order *Crassulaceæ*, found in the Island of Socotra. It has stoutish erect stems, with orbicular-spathulate entire leaves, covered with a white mealiness, and terminal umbelliform panicles of scarlet flowers having a tubular corolla nearly an inch in length; Haage et Schmidt.—*Tulipa Ostrowskiana*, Regel [t. 1144, f. 1—2], an East Turkestan species; found by M. A. Regel in 1881. It has trifoliate stems, 8—10 inches high, with narrow lanceolate, much undulated leaves, and solitary flowers the perianth segments of which are elliptic shortly acuminate, bright cinnabar red with a black angular spot at the base of each; St. Petersburgh Botanic Garden.—*Tulipa triphylla Holtzeri*, Regel [t. 1144, f. 3—4], a variety in which the leaves are linear oblong, glaucous, much undulated, and decumbent; its small flowers have narrow perianth segments, and are yellow, with the three exterior ones red on the outer side and somewhat larger than the others; sent from Turkestan to St. Petersburgh garden.—*Jubaea spectabilis*, H. & K. [t. 1145] a woodcut figure of a remarkably fine specimen, originally published in the *Gardeners' Chronicle*.

REVUE DE L'HORTICULTURE BELGE, &c. (Mar.), contains a figure of *Stanhopea tigrina grandiflora*, a very large-flowered variety of one of the handsomest and most odiferous of the species. These Orchids have been neglected of late owing to the short duration of their flowers, but their singularly grotesque appearance should secure for them a larger share of the attention of cultivators.

The BULLETIN D'ARBORICULTURE, &c. (Mar.), contains a coloured plate of the *Reine Claude de Brandy Plum*, which appears to be a large late form of the Green Gaze, and is said to be of fine quality.

The GARDENERS' CHRONICLE (Feb. 24—Mar. 15) contains notes and descriptions of *Phalaenopsis Veitchiana brachyodon*, Rchb. f. (p. 270), a sturdy variety with lightly mottled leaves resembling those of *P. leucorrhoda*, and an erect flower stalk 15 in. high, which has indications of ramifications; the sepals and petals are pure white, the lateral sepals which have also a slight tinge of sulphur, having brown spots on the inner upper side at the base; the side lobes of the lip are purple at the top, white at the base; the front lobe, whose apex is retuse and nearly bidentate, is dark purple verging to brown and spotted with the same on the whitish-ochre ground and margins; Low & Co.—*Dendrobium vexabile*, Rchb. f. (p. 271), a pretty Orchid with the stoutish stems in the way of *D. luteolum*, reddish and constricted at the joints; the flowers are pale sulphur, the side lobes of the lip marked with numerous narrow lines, the middle lobe wavy sulphur with an orange blotch on each side of a tuft of hairs; Low & Co.—*Vanda teres aurorea*, Rchb. f. (p. 271), a lovely variety with white sepals and petals, the lip pale-ochre on the throat, rose-colour on the lobes with two rows of small purple dots, and the column light rose purple; Sir W. Marriot, Bart.—*Dendrobium signatum*, Rchb. f. (p. 306), a species from Siam in the way of *D. Bensoniae*, the inflorescence as yet one-flowered, the flowers with white or whitish sepals and petals; the lip nearly square and narrow at the base suddenly enlarged the front portion obtuse-sided triangular with the apex acute, sulphur coloured with a broad transverse radiating brown blotch on the disk; the column green with mauve stripes; W. Bull.—*Odontoglossum Wilkeanum sulphureum*, Rchb. f. (p. 306), a very fine variety with sulphur coloured flowers with elongated sepals and petals, having one or two red blotches on the lateral sepals, and a few red blotches and lines upon the lip; a good contrast with *O. Wilkeanum albens*; C. Vuylsteke.—*Dendrobium superbum Burkei*, Rchb. f.

(p. 306), a very fine white-flowered variety of the plant commonly known as *D. macrophyllum*, with a yellowish-white lip having two blush-rose cheeks at the base of the disk; Veitch & Sons.—*Picea Omorika*, Pancic (p. 308, fig. 58), the Servian Spruce, a large evergreen tree, forming a pyramidal crown, with short branches, clothed with flattish straight or laterally curved linear oblong obtuse leaves $\frac{1}{2}$ — $\frac{3}{4}$ inch long of a shiny green; the cones are oblong-ovate, spreading or deflexed about 2 inches long, with broad loose scales as in other Spruce Firs; Messrs. Freytag, Zurich.—*Dendrobium nobile album*, Rchb. f. (p. 338), a pretty variety with very pale purple edges to the sepals and petals, the base and tip of the lip being also of a very pallid hue of purple, while the anther setting on the green column is dark purple; W. Lee, Esq.—*Calopogon multiflorus*, Lindl. (p. 338), a lovely plant, which has probably never before been seen in flower in this country. The peduncles bear several flowers, comparable to those of a diminished *Bletia verecunda*, being of the finest amethyst purple, while the broad irregularly square retuse lip bears near the base a rich tuft of golden yellow hairy lamellæ, often purplish at the base and in front of these some purple calli; a native of Florida, recently imported by Mr. B. S. Williams.—*Abies Fortunei*, A. Murray (p. 348, figs. 64—67), a Japanese conifer sometimes called *A. jezoensis*, and also by some referred to a new genus *Keteleeria*. At Foo Chow Foo it forms a magnificent tree (only one however being known), but it appears to be tender in our climate, though it might thrive on our South and West Coasts, in some parts of Ireland, or in the Channel Islands. The tree has the habit of the Cedar of Lebanon, glabrous orange-red branches, yellowish green linear acute leaves, and cones varying considerably in size of a dull bluish colour with a glaucous bloom. It has produced seeds with Messrs. Rivelli, of Pallanza, from which a stock of young plants has been reared.

The GARDEN (Dec. 15—Mar. 15) contains coloured figures of *Crossandra undulafolia* (pl. 418), a dwarf stove Acantbad from Ceylon, with handsome salmon-coloured flowers; Kew.—*Mutisia decurrens* (pl. 419), a beautiful climbing composite with large orange-coloured flower heads; Mr. B. Hook.—*Zenobia speciosa pulverulenta* (pl. 420), a charming hardy deciduous shrub for the American garden, its branches being strung with deliciously-scented white bells; Munstead.—*Tigridia Pavonia alba* (pl. 421), the white Tiger flower, a seedling raised by M. Hennéquin, of Angers, with ivory white flowers spotted with crimson; Dr. Wallace.—*Dianthus Atkinsoni* (pl. 422), a fine old garden hybrid, of a rather straggling habit, but bearing rich crimson flowers; T. S. Ware.—*Bessera elegans* (pl. 423), a beautiful half-hardy Mexican bulb, with grassy leaves and slender umbels of drooping scarlet liliaceous flowers; T. S. Ware.—Group of Cloves and Border Carnations (pl. 424), C. Turner.—*Lilium speciosum Melpomene* (pl. 425), a handsome large-flowered variety with deep crimson spotted petals white at the margin; G. F. Wilson, Esq.—*Vanda Sandwicensis* (pl. 426), one of the finest of Orchids; W. Lee, Esq.—*Clematis Jackmanni alba* (pl. 427), a greyish white variety of one of the finest of hardy climbers, a hybrid raised by Mr. G. Jackman; C. Noble.—*Odontoglossum Insleayi splendens* (pl. 428), a large high-coloured variety of a fine old Orchid; B. S. Williams.—*Vanda insignis* and *V. insignis Schröderiana* (pl. 429), the type is a rare and beautiful Vanda with deep brown flowers having a concave rosy lip; the variety is unique, and has yellow flowers and a white lip; Baron Schröder.—*Schizostylis coccinea* (pl. 430), a fine Kaffrarian Irid, with long spikes of scarlet flowers of a very showy

character; G. F. Wilson, Esq.—*Nymphaea zanzibarensis* (pl. 431), a very handsome water lily from Zanzibar, the flowers of which are large and of a violet colour shaded with purple intensified on the lower petals; Kew.

CURTIS'S FARM INSECTS.*

THIE late Mr. Curtis was a recognised authority on the subject of insects hurtful to vegetation, and the work whose title is here quoted has long been known as one of the standard books on the subject. Though nominally devoted to farm insects, it applies equally to those of gardens, seeing that the many identical or closely allied subjects found in the field and garden, are attacked by the same insect enemies; and on this account, as well as from its authoritative character, it should be placed in every garden library. The illustrations are of a very high class, and fill sixteen steel plates each containing many figures, besides which there are sixty-nine wood engravings, all, we believe, from the pencil of Mr. Curtis himself, who was a very expert draughtsman. In the plates the principal figures are coloured. Altogether, so excellent is the book in all its departments, that, as it was out of print, we think the publisher has exercised a wise discretion in determining to reissue it, and placing its valuable and important information within the reach of the agriculturists and horticulturists of the present day.

The book is divided into sixteen chapters, which are severally devoted to the natural history and economy of the insects affecting particular crops, as the Turnip crop, the Corn crops, the Pea and Bean crops, the Potato crop, the Clover crop, Carrots, Parsnips, &c. The mode of treatment is to give a description of the several insects affecting each particular crop, with remarks on their habits and peculiarities, and such information on the mode of destroying them as may be available, the whole winding up with a summary of the information contained in the chapter, this summary being printed in short pithy sentences. Thus in reference to Carrots we read (p. 423)—

“Carrots subject to the attacks of a variety

* *Farm Insects: being the Natural History and Economy of the Insects injurious to the Field Crops of Great Britain and Ireland, &c., &c.* By John Curtis, F.L.S., &c. Illustrated with numerous Engravings. London: Van Voorst, 1883.

of insects. The Carrot-leaf plant-louse killing one-tenth of the crops about midsummer.

Powdered tobacco dusted over the carrots, or watering them with a decoction of tobacco will kill the *Aphides*.

Another species of *Aphis* infests the roots in the Autumn.

The Rust is occasioned by the maggots of a fly called *Psila Rosa*.

These maggots infest the carrots in summer and winter, boring *labyrinths* round and through the tap root.

They change to pupæ in the earth and the flies are hatched in the spring.

Slugs and *Podura* also inhabit the unsound roots.

The maggots of *Psila nigricornis* are, probably, equally injurious.

Sometimes they attack the carrots when very young.

Remove the infested roots as soon as the leaves turn yellow and burn them.

Trenching the ground in the autumn is one of the best securities against most insects.”

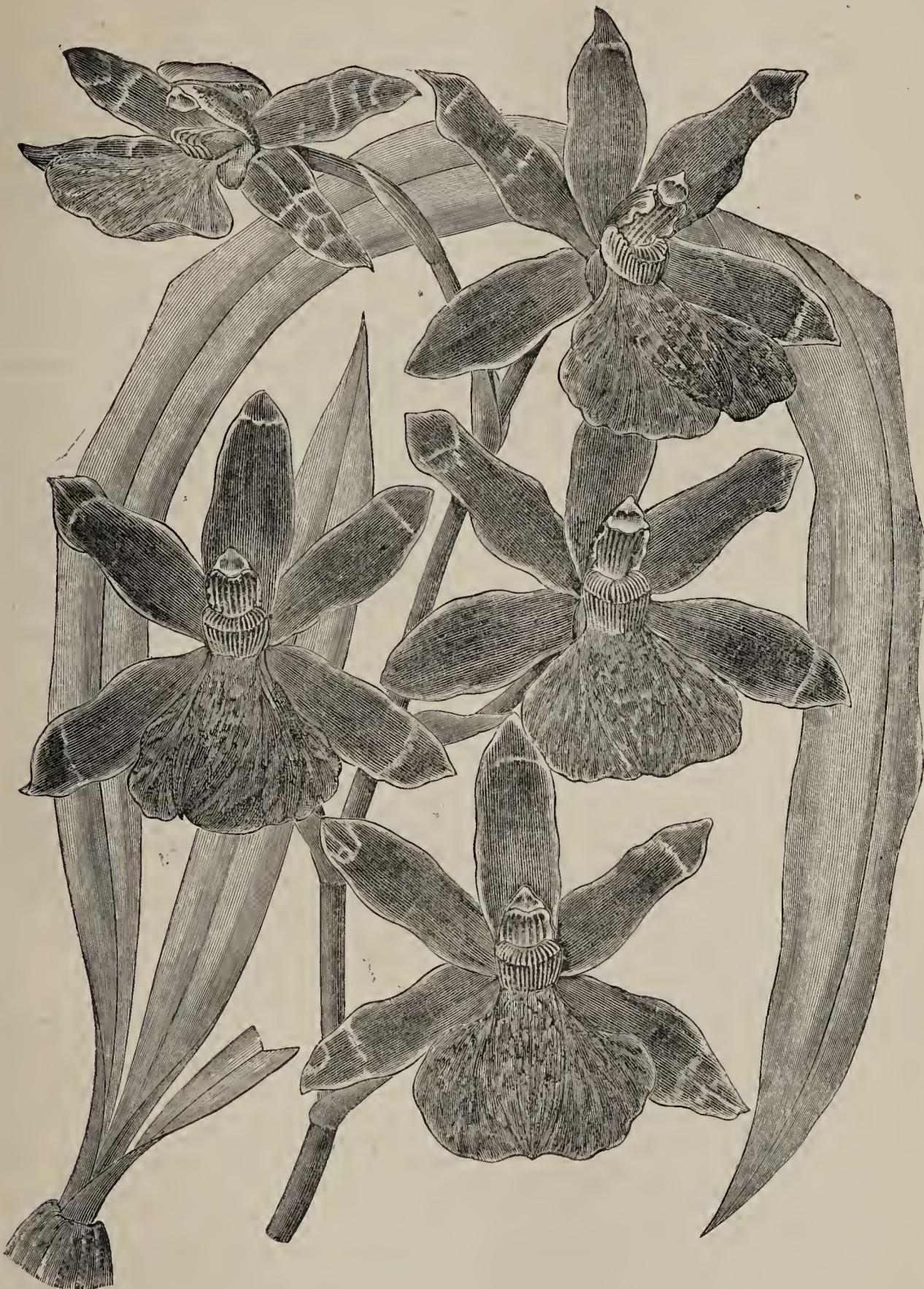
In this way the whole of each chapter is summarised, and all the principal points in it brought out clearly.

The book is well printed, and thus forms a handsome and attractive volume, valuable both for its appearance and the sound information embodied in its pages.—M.

ZYGOPETALUM CLAYII.

A HYBRID *Zygopetalum* raised by Col. Clay, of Wallassy, Birkenhead, between *Z. crinitum* and *Z. maxillare*, and named by Prof. Reichenbach. We are indebted to Mr. Williams, of the Victoria Nursery, Holloway, for the annexed figure, and for the following particulars respecting the plant:—

“This is the finest *Zygopetalum* ever offered; it has the free habit of growth of *Z. crinitum*, with the intense bluish-violet lip of *Z. maxillare*, only much enlarged. The inflorescence is that of the well-known *Z. crinitum*; the sepals and petals are, however, not blotched on a green ground, but they are totally brownish-purple, with a very narrow green border; the lip has unusually small basilar auricles adnate to the callus, which is whitish with bluish-violet stripes, free from any velvety



ZYGOPETALUM CLAYII.

lines, and the cuneate-ovate blade is totally free from any velvet, and of a beautiful purplish blue, so that it has the full colour of *Z. maxillare*. The column is nearly that of *Z. crinitum*, whilst the bracts are decidedly smaller than those of that species." It was certificated when originally shown at the South Kensington Meeting in 1877.

The plant is of vigorous growth, evergreen, with lanceolate nervose leaves, reaching to a foot and a half in length. Mr. Williams recommends that it should be grown in a pot, in a compost of good fibrous loam with a little leaf mould, and that as it has strong fleshy roots it should get a good supply of water during the growing period.—T. MOORE.

GARDEN GOSSIP.

— IT is announced that the ROYAL HORTICULTURAL SOCIETY have made arrangements with the Council of the International Health Exhibition to hold, in addition to the fortnightly meetings, MONTHLY EXHIBITIONS of fruit and vegetables in the Conservatory on the following dates, when prizes amounting in the aggregate to £1,000 will be offered for competition : May 27, June 24, July 22, August 12 (cottagers' show), August 26, September 23, October 14, October 28. The schedules may be had on application.

— A PRESENTATION has recently been made by the Richmond Horticultural Society to Mr. GEORGE EYLES, their late Honorary Secretary, in recognition of the successful manner in which he had discharged the duties of that office. The Testimonial consisted of a silver tea kettle, stand, and lamp.

— UNDER the title of ROSES: HISTORY, CULTURE, AND EXHIBITION, Mr. Eyre has published, price 2d., a lecture delivered in January last, to the St. Luke's Young Men's Society, Leek. The lecture is brief and its tone practical, for as Mr. Eyre told his hearers it represents the successful experience of twenty years. Its object was to induce young men to value their gardens and especially to tend their roses with loving care ; and we may therefore hope it made a due impression on those who heard, as it doubtless will upon those who read it.

— AT this season the following note on DOUBLE GRAFTING PEARS, published some time since by Mr. Graham, in the *Journal of Horticulture*, may be of interest. He writes : " Double working pears has long since been proved a great success. Some fifteen years ago I dismembered a large pear of the old, useless honey sort that covered the gable of my house, and grafted thereon Comte de Lamy, Beurre d'Aremberg, and Easter Beurre, October, January, and March varieties. These far surpass in quantity and quality (and both are excellent) anything I have or see around me on the quince.

— THE old but interesting BROWALLIA JAMESONI was shown recently in fine condition under the new but authorised name of STREPTOSOLEN JAMESONI, by Messrs. H. Cannell & Sons. It is a fine subject lost, but now reintroduced. It is a suffruticose plant of tall growth, giving off numerous slender branches, which are pendulous, and terminated by clusters of bright orange-red flowers, each about the size of a shilling. As a warm conservatory plant it is most valuable, as it flowers in winter and early spring. It was awarded a 1st-class Certificate by the Royal Horticultural Society on March 11. The genus belongs to the order Solanaceæ.

— IN reference to the question AMATEUR OR WHAT ? propounded at p. 23, the following reply to Thomas Alliston, in *Gossip of the Garden* (iii. 246), has been sent to us as being the current opinion some quarter of a century ago :— " If any person propagates his stock notoriously beyond his requirements, as for instance, if he pro-

pagates two hundred roses, well knowing he has convenience only for the growth of one hundred, but knowing the surplus will form a valuable property and will sell, then to all intents and purposes he becomes a dealer. But if he simply takes the natural increase from his flowers, whether Auriculas, Carnations and Picotees, Pinks, Tulips, or other subjects, and disposes of so much as is in excess of his own requirements, whether by exchange, for cash, in one lot to a trader, or in many lots to others, we think he remains an Amateur, and as such we shall invariably classify him." The crucial test is the growth for profit.

— AT no distant date we are likely to have BEDDING BEGONIAS, crimson, scarlet, white and yellow, the bright, sturdy leaves and immense flowers of which will leave the opponents of bedding-out little to complain of, for a bed of Begonias will never be a glare, because leaves and flowers are produced in about equal proportions. Messrs. Laing & Co. have wintered the tubers in beds with very good results, their plan being to cover the surface of the bed with cocoa fibre refuse, laying on galvanised covers to keep out the wet. When, however, Begonias come to be commonly used in the flower garden, as they assuredly will be before long, the tubers will have to be lifted in the autumn, stored away like dahlias, and then brought forward in pots in the spring before planting out. It is really surprising how little they are affected by stormy weather.

— IN the new weekly journal, *Woods and Forests*, a paper very opportunely issued, we find SOPHORA JAPONICA CRISPA noticed as one of the prettiest and most singular of hardy trees. Like the common Sophora, it is quite hardy, a free grower, and is densely furnished with dark green leaves that adhere to the branches till late in the season. Its singularity consists in the curious and uniform manner in which the leaves are curled, the points of all the shoots resembling, as it were, clusters of ringlets. It may also be occasionally met with in private gardens.

In Memoriam.

— DR. GEORGE ENGELMANN, of St. Louis, Missouri, died on February 4, aged 75 years. Dr. Engelmann was born at Frankfort-on-the-Main in 1810, graduated in that city, but soon took up his residence in the United States. It thus happened that he was almost as well known to British botanists as his associates and fellow-labourers, Torrey and Gray, and those of a younger generation. He had for many years resided at St. Louis, taking a leading part in all matters relating to his profession, to science generally, and botany in particular ; indeed, he has helped forward in divers ways the botany of his adopted land, so that on the Conifers, the Oaks, the Agaves, the Cactuses, the Vines, the Cuscutas, and sundry other groups, he had come to be looked up to as the leading authority.

— MR. JOHN CUTBUSH, Sen., died at Harrietsham, Kent, on February 23, in his 89th year. He was for nearly forty-five years gardener and confidential servant in the family of the late W. W. T. Baldwin, Esq., of Stede Hill, and for thirty-six years clerk of the parish church of Harrietsham, and was greatly respected and esteemed by all who knew him.



W. H. Fitch, del.

Chromo Stroobant Chent

Rhododendron Bluebell.

RHODODENDRON BLUEBELL.

[PLATE 609.]

IT will be at once apparent to those who glance at the accompanying illustration, and who know anything of hardy Rhododendrons, that the variety named Bluebell is one of first-class merit. It is in fact more lovely as a flower than effective as a picture, having a tint of blue thrown into its light purplish margin, which is of a most pleasing character. It is a sturdy vigorous shrub, with ample evergreen foliage, and bears large bold compact trusses of bell-shaped flowers, which are perfect in shape, having a white centre marked with a few

yellowish spots on the upper segment, and a well-defined margin of bluish-purple to the broad rounded lobes. Mr. Fitch has well represented the form of the flower and the contour of the truss, but the tint of colour is a feature which, if difficult for the artist to catch exactly, is still more difficult of reproduction in a chromolith.

The variety was raised by Mr. Anthony Waterer, of Knap Hill, and was first flowered about two years since, when our sketch was taken, thanks to the opportunity afforded by the courteous proprietor.—T. MOORE.

DESCRIPTIONS OF THE

RESUMING our descriptive list of these favourite flowers, we have next to take up the group of

SCARLET FLAKES.

ANNIHILATOR (*Jackson*).—A seedling evidently from Admiral Curzon, s.b., which it closely follows in its habit of growth and flower, save that it has no bizarre. At its best it is a fine flower, but it is difficult to propagate, being hard in its growth, and unkind in rooting, very sportive, and should on no account be highly stimulated. First bloomed in 1865; sent out in 1867.

BAYLEY JUNIOR (*Dodwell*).—A seedling from John Bayley, s.f., not so full of colour as the parent in its best days, but a very brilliant and striking flower. Habit of grass dwarf, but a good grower. First bloomed in 1879; sent out in 1880.

CLIPPER (*Fletcher*).—Raised at North Brierley, near Bradford, from seed taken from John Bayley, s.f. This variety closely follows the parent in habit of flower, though different in its growth, being freer, narrower, and longer in its grass. A fine variety; sent out in 1873. When forwarding it to me in 1875 Mr. Rudd said, "It has been each year as yet the best scarlet flake in my collection." Has a fine broad smooth petal, well continued to the crown, fine white, and very brilliant scarlet; will carry two, sometimes three flowers to a plant. Being high in colour, it should not be strongly stimulated, but growing freely it must not be cramped for room in its blooming quarters.

DAN GODFREY (*Holmes*).—Raised at Wakefield by the late Mr. Abraham Holmes, from his Roseflake Sybil, about ten years since. A large and very striking variety, and a very robust grower, but as a scarlet flake by no

BEST CARNATIONS.—IV.

means equal to the high place held by Sybil amongst rose flakes, the scarlet being somewhat undecided in tone or tint.

FRIAR TUCK (*Dodwell*).—Like the preceding, a seedling from a rose flake; also a large flower, and a good grower. But it is not one of the aristocracy of s.f.'s. Sent out in 1881.

HARRY MATTHEWS (*Dodwell*).—A seedling from Sportsman, s.f., not so full as the parent, but with a much broader petal, and also a deeper scarlet. A very telling variety, whether for the home stage or the exhibition table. Much inclined to sport. Sent out in 1882; first bloomed in 1879.

HENRY CANNELL (*Dodwell*).—The finest scarlet flake I believe I have yet raised; large, full, smooth, finely formed, and very definitely marked with brilliant scarlet, on a ground of the purest white. A fine grower. During the past season it has surpassed all put in competition with it. Seeded from Scarlet Keet, that again springing from John Keet. First bloomed in 1881; sent out during last autumn.

JAMES CHEETHAM (*Chadwick*).—Raised from mixed seed by the late Mr. Wm. Chadwick, of Dukinfield. First bloomed in 1859, when also it was sent out. This in a favourable season, a warm genial July, is one of the most telling s.f.'s we have, from its rich dark colour, distinct markings, fine white ground, and good form. In a cooler season, such as the two last have been, it lacks the brilliancy and finish needed for the highest class. A good grower; should be carefully shielded from wet from the moment the bud begins to open.

JOHN BALL (*Dodwell*).—A seedling from Clipper, s.f., but much larger; an extra fine variety, both for the home stage and exhibition table, of fine form, richly marked, large

size, and good quality. First bloomed in 1879 ; sent out in 1880.

JOHN BAYLEY (Dodwell).—A very fine variety in its day, but now rapidly passing to the decrepitude of age. John Bayley has, however, been the parent of some fine varieties, and though no longer of the same service to the exhibitor as formerly, it is worth growing from its free habit of seeding. It is a seedling from Curzon, and was first bloomed in 1855 ; sent out in 1857.

MR. CARTER (Dodwell).—A seedling from Dreadnought, s.b., first bloomed in 1882 ; sent out last autumn. A large, well-formed flower ; petals very broad, stout, smooth, and broadly marked with a rich scarlet on a pure white ground. A good grower.

RICHARD GORTON (Dodwell).—A seedling from J. D. Hextall, c.b., first bloomed in 1879, sent out in 1880. A very distinct variety, fine in form and substance, smooth, and very distinctly marked with dense scarlet on a pure white ground.

SAMUEL BROWN (Dodwell).—A sport from Admiral Curzon, s.b. Like Sportsman, of a similar origin, it is bright and fine in a high degree. Unfortunately the sport has not added stamina to the growth, so that the plants, as with Curzon and Sportsman, should be rested from bloom every second or third year.

SCARLET KEET (Dodwell).—A seedling from John Keet, r.f., which it follows closely in habit, shape, and constancy, the colour only varying. A prolific seed-bearer, and promising from this point alone to be one of the most valuable of the later introductions amongst Carnations. First bloomed in 1879 ; sent out in 1882.

SPORTSMAN (Hedderley).—A sport from Admiral Curzon, s.b., originated in 1855 in the collection of Mr. John Hedderley of Sneinton, Notts ; like its parent it went at one bound to the head of the class, taking the whole of the prizes in its class at the exhibition of the National Carnation and Picotee Society the following year at Birmingham, and the lion's share during the same season at other exhibitions of note. Differing from its parent only that it is without bizarre, it should have the same treatment both for its growth and in its blooming, and wherever this is intelligently given, the result will leave little to be desired. Though getting well into years, it is yet hale and robust, and with the treatment suggested for Curzon and Samuel Brown—the sparing the weaker plants from bloom—may be expected to be continued to us for years yet to come.

THOMAS TOMES (Dodwell).—A seedling from the above—though quite distinct—very rich in character, and fully maintaining the fine properties of the parent. But it is late in

bloom, and hence is not likely to be shown so frequently as the parent. A good grower, though somewhat shy to root. First bloomed in 1879 ; sent out in 1881.

WILLIAM LAING (Dodwell).—A seedling from Curzon ; of medium size and good habit ; scarlet dense, white pure, smooth, and boldly marked. One of the 1879 batch ; sent out in 1881.

WILLIAM MELLOR (Dodwell).—A seedling from John Bayley, s.f., richly marked with deep scarlet, large and finely formed. A good grower. First bloomed in 1879 ; sent out in 1880.

Two other varieties in this class, FIGARO and MATADOR, both raised by Dr. Abercrombie, late of Cheltenham, have been shown in fine condition by Mr. Turner during the past two seasons, and are apparently very desirable additions, but as they are only now in course of distribution I cannot speak more minutely of their habit and growth. Dr. Abercrombie informs me he never succeeded, to his knowledge, in fertilising the seed ; nor has he kept any account of the varieties from which seed has been taken.—E. S. DODWELL, Stanley Road, Oxford.

The following letter from Mr. Adams supplies very interesting information respecting Mr. Edmund Wood's fine c.b.'s and p.p.b., and in fixing the parentage and age of the varieties, as to which I previously had no definite information, furnishes the seedling raiser with a guide to further success. Recently I saw in a paper forwarded to me for another purpose an exception taken to the use of the term "pedigree" as applied to some new flowers. Without intending any criticism on the critic, I can only say whoever proposes to raise fine new flowers will find pedigree and parentage to be of the very first importance ; and therefore even supposing we can give only the immediate parent, we are at least determining a first step in a right road, and enabling those who come after us, to add more :—

" To Mr. Dodwell. Dear Sir,—I see by the account you give of Wood's c.b.'s that you don't know their parentage. I am glad to say I can inform you, as I had the pleasure of seeing them in Mr. Wood's garden the first year of their blooming *in pots*, in 1868, when he told me they were from Falconbridge by Jenny Lind, and I may say I liked them so well that I tried the same cross ; the result being John Harland, William Murray, and others quite as good, or better, but some cows got into my garden and eat them up. O dear ! it makes me ill to think of it, such good things they swallowed up.—Yours truly, E. ADAMS, Swalwell, Gateshead-on-Tyne, March 5, 1884."

THE NARCISSUS FAMILY.

NARCISSI have latterly engaged a large share of public attention, and they well deserve it, for they furnish us with a profusion of varied and bright and cheery flowers in the early months of spring, when flowers are ever welcome. A very successful meeting, under the dignified title of a "Narcissus Congress," was held at South Kensington on April 1, by the Royal Horticultural Society, and excited so much interest that we hope similar meetings may follow. A Tulip Congress, for example, might do something to extend the cultivation of these brilliantly variegated flowers; and a Primrose Congress would be so full of interest and variety that it could not all be crowded into one sitting.

On the occasion above referred to a very interesting paper on the Narcissus, of which the following is an abstract, was read by Mr. F. W. Burbidge, Curator of the College Botanic Garden, Dublin, and gave rise to an interesting discussion, which resulted in the adoption of a resolution affirming the desirability of naming garden varieties of *Narcissus*, whether hybrids or seedlings, in the manner adopted by florists, and not in the manner adopted by botanists, the object being to obtain, as far as possible, English instead of Latin names. Mr. Burbidge, after some remarks on the History and Nomenclature of the flower—the Narcissus or Flower of March, the Daffodil—that "comes before the swallow dares," went on to say:—

Narcissus is a genus of bulbous plants belonging to the natural order, of which the *Amaryllis* is the type. But Narcissus differs from Amaryllis proper in having a crown or corona, and thus represents not so much *Amaryllis* itself, as the *Pancratium* and *Hymenocallis* of the new world. The *Narcissus* flower has an inferior ovary, situated at the base of a cylindrical or obconical tube; at varying points along this tube spring six perianth divisions arranged in two series, and beyond these come the cup or crown.

Among the Narcissi generally two well-marked and distinct variations in the flowers are met with. In the Daffodils, the six stamens are of equal length, and have the same point of insertion low down near the obconical tube; but in the true or Poet's *Narcissus* the tube is much longer and quite cylindrical, and the six stamens are divided into two sets of three, each set having its own point of insertion—three near the mouth, and the other three further down the tube. Nearly all the variations of which a Narcissus flower is capable, are owing to the sliding, as it were, of the whorl of perianth segments along the tube of the flower; thus we find the length of

the cup or crown, and the length of the tube, always, or nearly always, vary in inverse proportion.

Some superficial distinctions are produced by the manner and degree of expansion usual to the perianth divisions. In the Hooped Petticoat (*Narcissus Bulbocodium*), for example, the perianth divisions are narrow and inconspicuous, lying in the same plane with the corona margins; in the common Daffodil the perianth lobes are broader and more expanded; in *N. incomparabilis* and in *N. poeticus* they are expanded at right angles to the tube, and so become star-like; so also in the "Little Cupped Italian," or *Narcissus Tazetta* group; while in the case of *Narcissus triandrus* we get a very distinct Cyclamen-like blossom, seeing that the perianth lobes are sharply reflexed or turned back, so that they lie parallel with the pendent flower-tube. In colour the *Narcissi* are not so variable as many other bulbed flowers. We get all shades of yellow and of white in the perianth, and one species, *N. viridiflorus*, known to Parkinson, and recently reintroduced by Mr. George Maw, has green blossoms. In *N. incomparabilis* we find cups richly tinted with orange-red, so also in some forms of *N. Tazetta*, while *N. poeticus* has a red or purple rim to the crown.

We have in all about twenty species of *Narcissus*, known to exist in a wild state. Nearly all these are found wild in Europe. Spain and the South of France seem to be the focus of the genus, but a few occur in N. Africa, and *Tazetta* is most ubiquitous, growing all over S. Europe and N. Africa, and then going off at a tangent, through Persia, Cashmere, and India, as far east as China and Japan.

THE SPECIES OF NARCISSUS, AND THEIR DISTRIBUTION.

Flat-leaved Species.

| | <i>Native Countries.</i> |
|--|---|
| 1. <i>N. Pseudo-Narcissus</i> | Sweden, England, Portugal, Spain, Italy, and Transylvania |
| 2. <i>N. incomparabilis</i> | Spain, S. W. France, Tyrol |
| 3. <i>N. Macleai</i> ... | Not wild |
| 4. <i>N. dubius</i> ... | S. France (Toulon, Avignon, Marseilles, Nice) |
| 5. <i>N. poculiformis</i> (montanus) ... | Not wild |
| 6. <i>N. Tazetta</i> ... | S. Europe, Cashmere, N. India, China, Japan |
| 7. <i>N. pachybolbus</i> ... | Algeria (? <i>N. Tazetta</i> var.) |
| 8. <i>N. biflorus</i> ... | France, Switzerland, Italy, Tyrol |
| 9. <i>N. poeticus</i> ... | S. Europe, France to Greece |
| 10. <i>N. Broussonetii</i> ... | Mogadore (Africa) |
| 11. <i>N. canariensis</i> ... | Canary Islands |

Rush-leaved Species.

| | |
|---------------------------------|--|
| 12. <i>N. Bulbocodium</i> | Spain, Portugal, France, S.W. to Bordeaux, N. Africa |
| 13. <i>N. odorus</i> ... | Spain, S. France, Italy, Dalmatia |
| 14. <i>N. juncifolius</i> ... | Spain and S. France |
| 15. <i>N. triandrus</i> ... | Spain |
| 16. <i>N. calathinus</i> ... | Isles of Glénan, Brittany |
| 17. <i>N. intermedius</i> ... | Spain, S. France, Balearic Isles |
| 18. <i>N. gracilis</i> ... | Not wild |
| 19. <i>N. Jonquilla</i> ... | Spain, S. France, Italy to Dalmatia |
| 20. <i>N. jonquilloides</i> ... | Spain |
| 21. <i>N. viridiflorus</i> ... | Spain and Barbary |
| 22. <i>N. elegans</i> ... | Italy, Sicily, Algiers |
| 23. <i>N. scrotinus</i> ... | Spain, S. Europe, Barbary, Greece, and Palestine |

Parkinson in 1629, described or figured ninety-six species and varieties, and is very particular that we

should distinguish Daffodils from *Narcissus* proper, and not confound the flat-leaved with the Rush-leaved kinds. At a more recent date Salisbury, Haworth, and Herbert all worked among these flowers; but their methods of classification are obsolete, and we are indebted to Mr. J. G. Baker, of Kew, for the clearest and most useful system of grouping, according to the relative length of the cup or corona as compared with the perianth segments; these three main divisions may be subdivided into flat-leaved and Rush-leaved groups.

The three main divisions, as characterised by the varying size of the cup or crown, are:—

- Magnicoronati*, or "Coffee Cup" section.
- Mediicoronati*, or "Tea Cup" section.
- Parvicoronati*, or "Tea Saucer" section.

I. MAGNICORONATI.—Crown as long, or longer, than the perianth divisions.

Flat-leaved.

N. PSEUDO-NARCISSUS.—The type of this species is the common Daffodil of English meadows and orchards, and of this there are innumerable forms, ranging from the tiny *N. minimus* up to *N. maximus*, which is the tallest and largest of its race. All the varieties have flat glaucous leaves.

Rush-leaved.

N. Bulbocodium.—The type of this species is the "Hooped Petticoat" Daffodil of Southern Europe. There are many varieties, all easily recognised by the expanded corona, narrow perianth segments, delicate stamens, and green Rush-like leaves.

II. MEDIICORONATI.—Crown half or rarely three-quarters as long as the perianth divisions.

Flat-leaved.

N. incomparabilis.—1-flowered; leaf $\frac{1}{2}$ inch broad, glaucous.

N. Macleai.—1—2-flowered; leaves broad, greenish; crown bright yellow, three-quarters as long as the spreading white perianth segments (? hybrid).

N. dubius.—Many-flowered, with flattish, glaucous leaves; perianth-segments 3—5 lines long; cup 3 lines deep.

N. poculiformis (montanus).—1—2-flowered, all white; crown half as long as the perianth divisions; flower "dog-eared," but 3 to 4 inches in diameter.

Rush-leaved.

N. odorus (Campernelle Jonquil).—All yellow; 2—5-flowered, with bright green Rush-like leaves.

N. juncifolius.—1—5-flowered, much smaller than *N. odorus*, with a flattish corona.

N. triandrus.—1—5-flowered; perianth divisions reflexed, like a Cyclamen flower.

N. calathinus.—1—2-flowered, with reflexed segments, like the last, but shorter, and having a larger corona.

III. PARVICORONATI.—Crown less than half as long as the perianth divisions.

Flat-leaved.

N. Tazetta.—Many-flowered, with flat glaucous leaves, very variable.

N. pachybulbus.

N. biflorus.—1—3-flowered, flowers like *N. poeticus*, creamy-white, cup pure yellow.

N. poeticus.—1-flowered, white, with purple or red edged crown.

N. Broussonetii.—Crown nearly suppressed.

N. canariensis.

Rush-leaved.

N. intermedius.—Many-flowered, yellow.

N. gracilis.—1—2-flowered; flowers pale yellow, as large as *N. poeticus*.

N. Jonquilla.—Many-flowered.

N. jonquilloides.—Flowers deep yellow, very fragrant.

Autumn-flowering.

N. viridiflorus.—Many-flowered, perianth greenish.

N. elegans.—1—3-flowered, pure white.

N. serotinus.—Flowers after the leaves, very like the last, with broader perianth segments.

As regards *Narcissus* hybrids, it is a matter of regret that the workers in this fertile field have left us scarcely any data or notes of how their numerous seedling and hybrid forms were produced. Herbert (*Journ. R.H.S.*, ii., 1) has told us more than any one; and the late Mr. W. Backhouse, of St. John's, Walsingham (who raised the "Empress" and "Emperor" Daffodils), contributed an interesting paper to the *Gard. Chron.* (June 10th, 1865). The late Mr. Leeds, of Longford Bridge, Manchester, who raised more new kinds than any one else, gave us no information whatever, nor did the late John Horsfield, the Lancashire weaver, who raised the "Bicolor Horsfieldii Daffodil," decidedly one of the most robust and beautiful of its race. The late Mr. Nelson, of Aldborough Rectory, near Norwich, raised a few varieties of especial merit, notably the noble sulphur Daffodil named "Gertrude Jekyll," and a white form of the dwarf Daffodil (*N. nanus*), but here cross-fertilisation was not resorted to. M. de Graaff's fine new kinds are seedlings of wind-fertilised hybrids. The moral here would seem to be, "Raise seedlings—hybrids if you can—but raise seedlings."

Some of these hybrids have again yielded seedlings, so that the variations now observable are of the most divergent and perplexing kind.

The culture of all the Daffodils and of nearly all the *Narcissi* is not difficult. Most of them are robust enough to increase in beauty from year to year if planted at the proper season in well-tilled soil. Some of the dwarf and tender species, as *N. triandrus*, *N. juncifolius*, *N. Bulbocodium* (especially the paler forms), *N. viridiflorus*, *N. elegans*, and *N. serotinus*, succeed best in pots in a cool house or frame. The white race of Daffodils also do best on a warm sunny border, but the yellow and bicolor Daffodils, and nearly all the hybrid kinds, will luxuriate in the open air border almost anywhere. The proper time to transplant *Narcissus* generally is in June, July, or August. They may be dug up as soon as the foliage has withered away, and if replanted immediately in good well-drained soil they do not suffer much, if any, by removal. It is a good plan to mulch well with rotten manure, just before flowering time; and if very fine fresh flowers for show or decorative uses are wanted, cut them whilst they are in the bud stage, and place them in water indoors to expand. In sending flowers by post pack them in the bud stage, and thus many buds can be sent which will all open fresh and fair if placed in water immediately on their arrival.

—F. W. B.

PRIMULA SIEBOLDII.

HERE are now so many beautiful forms of this Japanese Primrose that it is a wonder they are not more grown.

There is reason to fear that those who obtain small plants in the first instance, are not satisfied with the way in which they flower the first year in consequence of being small, and that they do not persevere. An enthusiastic amateur florist writing a few

days ago, states :—"I must admit that last year I was rather disappointed with them" (varieties of *P. Sieboldii*), "but after a good winter's rest they have come up with from four to six stems in a pot, each carrying grand heads of flowers—and very large flowers too. They are very elegant in their habit, and bright in colour." If this hopefulness actuated others, and they would wait for the results of another season, not neglecting their plants meanwhile, they would be much better satisfied with them. All of them are very pleasant spring flowers, grown with ease, and delightfully satisfying.—R. DEAN, *Ealing, W.*

THE NATIONAL AURICULA SOCIETY.

SOUTHERN SECTION.

THE annual exhibition of this Society was held in the Conservatory of the Royal Horticultural Society at South Kensington, on April 22, and was in every way successful, the display being good and abundant, and the competition spirited; while it was generally admitted that there was an evident advance apparent in the qualities of the flowers shown, seedlings of high quality and possessing vigorous constitutions, infusing as it were new blood amongst the cultivated varieties.

The Seedlings brought forward on this occasion contained some choice varieties, which cannot fail to carry forward the improvement just referred to. We notice these first:—

GREEN-EDGED.—The 1st prize in this class was awarded to Rev. F. D. Horner (Simonite), shown by Rev. F. D. Horner, Lowfields, Burton-in-Lonsdale, Carnforth; it has a very perfect green edge, without spot, black ground colour, and a slightly angular paste, but is nevertheless a good all-round flower; 2nd, Horner's *Kestrel*, by the same grower, a very neat flower, with good green, rather faulty in outline, black ground colour, dense paste, and circular pale tube.

GREY-EDGED.—1st prize to Rev. F. D. Horner, for *Merlin* (Simonite), an improved form of *Ajax*, the edge a good greenish-grey, black ground colour, perfect paste and pale tube; 2nd, Mr. J. Douglas, gardener to F. Whitbourn, Esq., Great Gearies, Ilford, for *Marmion* (Douglas), a flower with good sil-

very grey edge, rather lacking in ground colour, which is black, and having a good tube.

WHITE-EDGED.—1st, Rev. F. D. Horner, for *Magpie* (Horner), a very symmetrical flower, with pure white edge, black ground colour, white paste, and pure yellow tube; 2nd, Rev. F. D. Horner, with *Miranda* (Horner), which, as shown, was rather rough and irregular in outline.

SELFs.—1st prize, Rev. F. D. Horner, for *Mrs. Horner* (Horner), a violet self of the finest form, with beautifully flat rose-leaved segments, a charming flower; 2nd, Rev. F. D. Horner, with *Enchantress* (Horner), a pale violet self, with rather thin paste and pale tube.

ALPINES, of the gold-centred type.—1st, Mr. C. Turner, with *Unique* (Turner), a large flower of first-rate properties, maroon shading off to dull red, and having a good golden yellow centre; 2nd, Mr. J. Douglas, with *J. H. Laing* (Douglas), a very bright reddish maroon shading off to crimson, the centre a rich yellow. Of the pale-centred type—1st, Mr. Turner, with *Rainbow* (Turner), maroon-purple shading off to pale purple, a very refined flower with creamy centre; 2nd, Mr. Turner, with *Placida* (Turner), reddish maroon shading off to dull red.

GOLD-LACED POLYANTHUS.—In the black-ground section—1st, W. Brockbank, Esq., Didsbury, with *John of Gaunt* (Brockbank), a large showy flower beautiful laced, but sadly deficient in the symmetry of the lacing; 2nd, W. Brockbank, Esq., with an unnamed seedling of no great merit. In the red-ground section, Mr. Brockbank had a 1st prize for *Lord Derby* (Brockbank), a fine flower of the Exile stamp.

Besides the prizes above noted, First-class Certificates were awarded to the Rev. F. D. Horner for the Auriculas *Merlin*, *Magpie*, and *Mrs. Horner*.

The following is a list of the awards made in the several classes:—

SHOW AURICULAS.

Class A. 12 dissimilar—Veitch Memorial Prize and Medal, Rev. F. D. Horner, with *Miranda* (Horner), George Lightbody (Headly), *Moonlight* (Horner), *Heroine* (Horner), John Simonite (Walker), *Monarch* (Horner), Mrs. Horner (Horner), Col. Taylor (Leigh), *Magpie* (Horner), Mrs. Douglas (Simonite), F. D. Horner (Simonite), *Mars* (Horner). 1st, Mr. Douglas, Great Gearies, Ilford, with *Marmion* (Douglas), *Smiling Beauty* (Heap), *Jumbo*

(Douglas), Prince of Greens (Traill), Blackbird (Spalding), Col. Taylor (Leigh), Frank Simonite (Simonite), Lancashire Hero (Lancashire), George Lightbody (Headly), C. J. Perry (Turner), Pizarro (Campbell), Conservative (Douglas). 2nd, Mr. E. Pohlman, Halifax, with Lancashire Hero (Lancashire), Beauty (Traill), Regular (Ashworth), Col. Taylor (Leigh), John Crossley, green-edged, Blackbird (Spalding), George Lightbody (Headly), Charles J. Perry (Turner), Ringdove (Horner), Prince of Greens (Traill), Acme (Read), Countess of Wilton (Cheetham). 3rd, Mr. C. Turner, Slough, with Lovely Ann (Oliver), Meteor Flag (Lightbody), C. J. Perry (Turner), Stapleford Hero (Headly), Lancashire Hero (Lancashire), Mrs. W. Brown (Turner), Lady S. Dumaresque (Lightbody), Beauty (Traill), Frank Simonite (Simonite), True Briton (Hepworth), Topsy (Kay), Talisman (Simonite). 4th, W. Brockbank, Esq., Didsbury, Manchester, with Cymbeline (Mellor), Lancashire Hero (Lancashire), Beauty (Traill), John Simonite (Walker), Alex. Meiklejohn (Kay), Mrs. Heap (Mellor), Acme (Read), Col. Taylor (Leigh), George Lightbody (Headly), Smiling Beauty (Heap), Blue Gown (Mellor), Talisman (Simonite). Mr. W. F. Bateman, Kent's Bank, Grange-over-Sands, also exhibited, showing C. J. Perry, (Turner), Acme (Read), Col. Champneys (Turner), Blackbird (Spalding), Superb (Headly), Prince of Wales (Ashton), Unique (Dickson), St. Augustine (Cunningham), Stapleford Hero (Headly), and 2 or 3 Seedlings.

Class B. 6 dissimilar.—1st, Rev. F. D. Horner, with Monarch (Horner), George Lightbody (Headly), Heroine (Horner), Luna (Horner), Enchantress (Horner), F. D. Horner (Simonite). 2nd, Mr. J. Douglas, Great Gearies, with Acme (Read), George Lightbody (Headly), Ajax (Horner), Conservative (Douglas), Prince of Greens (Traill), Topsy (Kay). 3rd, Mr. E. Pohlman, Halifax, with Acme (Read), Brilliant (Pohlman), Helen Lancaster (Pohlman), George Lightbody (Headly), Beauty (Traill), Prince of Greens (Traill). 4th, W. Brockbank, Esq., Didsbury, with George Lightbody (Headly), Cymbeline (Mellor), Lancashire Hero (Lancashire), Acme (Read), Miss Brockbank (Brockbank), Alex. Meiklejohn (Kay). 5th, W. F. Bateman, Esq., Grange-over-Sands, with Acme (Read), C. J. Perry (Turner), Unique (Dickson), Col. Champneys (Turner), Superb (Headly), Blackbird (Spalding). 6th, Mr. M. Rowan, Clapham, S.W., with Maggie Lauder (Lowe), Admiral Napier (Campbell), Lovely Ann (Oliver), Alma (Lightbody), Lord of Lorne (Campbell), Chas. J. Perry (Turner).

Class C. 4 dissimilar.—1st, Mr. B. Simonite, Sheffield, with Acme (Read), Merlin (Simonite), Heather Bell (Simonite), Samuel Barlow (Simonite). 2nd, Mr. T. E. Henwood, Early, Reading, with Beauty (Traill), Dr. Horner (Read), Gipsy (Mellor), Prince of Greens (Traill). 3rd, Mr. E. Shaw, Street Fold, Moston, near Manchester, with Geo. Lightbody (Headly), Acme (Read), Mrs. Heap (Mellor), Lovely Ann (Oliver). 4th, Rev. E. L. Fellowes, Wimpole Rectory, Royston, with Col. Taylor (Leigh), True Briton (Hepworth), Charles E. Brown (Headly), Blackbird (Spalding). 5th, Mr. W. Bolton, Warrington, with Col. Taylor (Leigh), Frank Simonite (Simonite), seedling; Mrs. Douglas (Simonite). 6th, T. A. Wilton, Esq., Rectory, Grove House, Clapham, with Confidence (Campbell), Lancashire Hero (Lancashire), Lord of Lorne (Campbell), Pizarro (Campbell). A collection was also staged by J. T. D. Llewelyn, Esq., Penllergare, Swansea, consisting of Petronella (Headly), Imperator (Litton), Pizarro (Campbell), Smiling Beauty (Heap).

Class D. 2 dissimilar.—1st, Mr. T. E. Henwood, Reading, with Geo. Lightbody (Headly), and Mrs. Douglas (Simonite). 2nd, Mr. E. Shaw, Moston,

Birmingham, with G. Lightbody (Headly), and C. J. Perry (Turner). 3rd, Mr. C. Phillips, Earley, Reading, with Richard Headly (Lightbody), and C. J. Perry (Turner). 4th, Rev. E. L. Fellowes, with Charles E. Brown (Headly), and Meteor Flag (Lightbody). 5th, Mr. B. Simonite, with Heather Bell (Simonite), and Lancashire Hero (Lancashire). 6th, Mr. W. Bolton, Warrington, with Frank Simonite (Simonite), and Sapphire (Horner).

Classes E., F., G., H., single specimens:—

Green-edged—Rev. F. D. Horner 1st with Prince of Greens (Traill), 2nd with F. D. Horner (Simonite), 4th with Kestrel (Horner); Mr. E. Pohlman 3rd with Col. Taylor (Leigh), 5th and 6th with Prince of Greens; Mr. J. Douglas 7th with Prince of Greens, and 8th with F. D. Horner.

Grey-edged—Mr. E. Shaw 1st and 2nd with George Lightbody (Headly), 8th with Alex. Meiklejohn (Kay); Rev. F. D. Horner 3rd with Irreproachable (Horner), 4th with Thetis (Horner), 5th and 7th with George Lightbody; W. Brockbank, Esq., 6th with Dr. Horner (Read).

White-edged—W. Brockbank, Esq., 1st with Acme (Read); Mr. B. Simonite 2nd with Acme; Mr. J. Douglas 3rd and 8th with Conservative (Douglas), and 7th with Acme; Rev. F. D. Horner 4th with Beeswing (Horner), and 6th with Luna (Horner).

Selfs.—Rev. F. D. Horner 1st and 2nd with Heroine (Horner), 3rd with Kathleen (Horner), 4th with Blackbird (Spalding); Mr. J. Douglas 5th with Topsy (Kay), and 6th with a Seedling, 30; Mr. C. Turner 7th and 8th with Topsy.

Class I. 50, not fewer than 20 varieties—1st, Mr. Douglas, with several seedlings and the following varieties in duplicate:—Beauty, C. J. Perry, Green-edge (Campbell), Vulcan (Sims), George Lightbody, Smiling Beauty, Lancashire Hero, Eliza (Sims), Ajax (Horner), Prince of Greens, Lord of Lorne, Colonel Champneys, Conservative, Acme, Mazzini (Pohlman), Silvia, Dr. Kill (Douglas), Dr. Horner, John Waterston (Cunningham), Sappho (Horner), Mabel (Douglas), Marmion (Douglas), Lady Sophia Dumaresque, and Admiral Napier (Campbell); 2nd, Mr. Turner, with the following varieties, mostly in duplicate:—Beauty, Lord of Lorne, Talisman (Simonite), Lady Sophia Dumaresque, Sarah (Turner), Mrs. Smith (Smith), Colonel Champneys, C. J. Perry, Topsy, Rev. G. Jeans (Traill), Gertrude Knight (Turner), Eliza, Smiling Beauty, J. Waterston, Alma, Dr. Horner (Read), Vulcan, Acme, Pizarro, Juno, R. Headly, Mrs. Brown, Meteor Flag, James Douglas, Clipper, C. E. Brown, and Alex. Meiklejohn.

Class R. 12 dissimilar Fancy—1st, Mr. James Douglas, with all yellow ground flowers; 2nd, S. Barlow, Esq.

The Premier Auricula was Prince of Greens, shown by Mr. E. Pohlman.

ALPINE AURICULAS.

Class K. 12 dissimilar.—1st, Mr. Turner, with Garnet, Mrs. Llewelyn, Mrs. Thomson, Unique, Comet, Purple Gem, Luna, Napoleon III., Aurora, Mrs. Ball, Gem, and Murillo, all of his own raising. 2nd, Mr. Douglas, with Sensation, Mrs. Llewelyn, Mrs. Meiklejohn, Ada Hartwidge, Dolly Varden, Mrs. Cope, and the remainder unnamed seedlings.

Class L. 6 dissimilar.—1st, Mr. Turner, with Mrs. Ball, Troubadour, Comet, Lavinia, Rainbow, and Bayard. 2nd, Mr. Douglas, with Mrs. Llewelyn, Rosamond S. Fellowes, Mrs. Meiklejohn, Queen Victoria, Amelia Hartwidge, and Ada Hartwidge. 3rd, Rev. E. L. Fellowes, with Mariner, Diadem, Beatrice, Rosamond S. Fellowes, and two seedlings.

Classes M. and N., single specimens:—

Gold-centres: Mr. Turner 1st, 3rd, 5th, and 6th

with Unique ; Mr. Douglas 2nd with J. H. Laing, and 4th with Sensation.

White or Cream-centres : Mr. Turner 1st with Rainbow, 2nd with Princess of Wales ; Mr. Douglas 3rd, 4th, and 5th with Queen Victoria, and 6th with Ada Hartwidge.

POLYANTHUSES.

Class O. 6 dissimilar, Gold-laced.—1st, W. Brockbank, Esq., with Lord Derby (Brockbank), Exile (Crownshaw), Prince Regent (Cox), John o' Gaunt (Brockbank), President (Hilton), and Black Diamond (Brockbank). 2nd, S. Barlow, Esq., Stakehill House, Castleton, Manchester, with John Bright (Barlow), Exile, Prince Regent, President, Cheshire Favourite (Saunders), and Model (Barlow). 3rd, Mr. James Douglas, with Exile, George IV. (Buck), Lancer (Bullock), President, William IV. (Buck), and Cheshire Favourite. 4th, Mr. R. Dean, Ealing, with Model, John Bright, Lancashire Hero, Lancer, Lord Morpeth, and a dark ground seedling.

Class P. 3 dissimilar, Gold-laced.—1st, S. Barlow, Esq., with John Bright, Cheshire Favourite, and Exile. 2nd, Mr. Douglas, with George IV., Exile, and Lancer. 3rd, W. Brockbank, Esq., with a dark ground seedling, President, and Cheshire Favourite.

4th, J. T. D. Llewelyn, Esq., with Lancashire Hero, Rev. F. D. Horner (Jackson), and President.

Class Q. Single Specimen.—1st, Mr. Brockbank, with Cheshire Favourite.

Class S. 12 dissimilar Fancy.—1st, Mr. Douglas, with a grand lot of plants, well flowered, clean, and fresh, white, yellow, and parti-coloured varieties, including Cygnet, Twilight, Khartoum, Lord Tennyson, Aenid, Rosetta, &c. Mr. R. Dean was 2nd, but was not in his usual form, his best flowers being over.

PRIMULAS.

Class V. 12, at least 6 distinct.—1st, J. T. D. Llewelyn, Esq., with well-flowered examples of *Primula Sieboldii* and *P. Sieboldii laciniata*, *P. japonica*, *P. verticillata simensis*, *P. sikkimensis*, *P. cortusoides*, *P. rosea*, *P. obconica*, and *pulcherrima*. 2nd Mr. Douglas, with a pretty lot consisting of varieties of *P. Sieboldii*, *P. Munroi*, *P. obconica*, and *P. marginata*, &c. 3rd, Messrs. Paul & Son, Cheshunt, with smaller examples, but more variety, their sorts being *P. denticulata*, *P. japonica*, *P. acaulis alba* (*Purity*), *P. ciliata purpurea*, *P. rosea*, *P. Munroi*, *P. imbricata*, *P. viscosa*, *P. pubescens*, *P. farinosa*, *P. Obristi*, &c.



KENTIA LINDENI.

A HANDBOME and well-marked new Palm, introduced by M. Linden from New Caledonia in 1875, and sent out in the following year. It is a free growing species, of elegant habit, and quite distinct in character. The leaves are pinnate, of a deep green colour, with red petioles and rachides ; the leaf segments numbering some

eight or ten pairs, are broadish, linear acuminate and gracefully drooping ; and the young leaves themselves, before their complete development, are of a bright salmony red, which adds much to the effectiveness of the plant. The plant is only known in its juvenile state, and as hinted by M. André, when publishing the coloured figure in *L'Illustration Horticole*

(3 ser., t. 276), it may prove to be one of the species previously described by MM. Brongniart & Gris. In the meantime its great value for decorative uses is incontestable. We are indebted for the woodcut to the Compagnie Continentale d'Horticulture.—T. MOORE.

THE HOLLYHOCK.

THOUGH one of our finest autumn flowers, the Hollyhock has scarcely recovered from the check given to its cultivation by the terrible fungus scourge by which it was a few years ago decimated. Every effort should however be made to restore it to our gardens, for in them we can ill afford to lose its stately beauty.

The Hollyhock requires good old garden soil, well trenched over, to the depth of at least two feet, and plenty of thoroughly decomposed manure, such as old cucumber beds or decayed night soil, well mixed with the earth, must be incorporated. Young plants should be planted every year, to secure fine flowers. The young plants which have been propagated during the summer are best preserved by being placed in a cold frame or greenhouse, giving plenty of air on all favourable occasions ; they should be re-potted in October into larger pots, in light, rich, sandy earth ; and in March or April they should be turned out into the open ground. So treated, they will bloom as finely and as early as if planted out in the autumn. They should be planted at not less than four feet from row to row, and three feet apart in the row ; or if grouped in beds, not nearer than three feet each way.

The Hollyhock will grow well in the shade of distant trees, but by no means must the roots of the trees rob them of their sustenance. In May or June, when the stems have grown a foot high, thin them out according to the strength of the plant. If well established and very strong, two or three stems may be left, but if required for exhibition only one must be allowed to grow on. If the weather is dry at this season of the year, the plants will be benefited by being watered with a solution of guano, or any other liquid manure, poured carefully around within reach of the roots, but not too near the stem. In order to obtain very fine flowers, cut off the lateral shoots, thin the flower buds if

crowded together, and take off the top of the spike according to the height desired, having regard to the usual height and habit of the plant. By topping the spike, the size of the flowers may be increased, but at the same time the duration of the flowering will be shortened. The plants must be staked before they get too high, and well secured by tying, so that they may grow erect. The most robust of the varieties does not require a stake to be higher than about four feet above the surface of the ground. Abundance of water in dry weather is beneficial.

It may be interesting to add, that the virulent disease which for some time threatened to drive the Hollyhock out of cultivation, and which is occasioned by the fungus, *Puccinia malvacearum*, a native of Chili, was first seen in Europe in 1869, when the disease attacked the Mallows in Spain. We find it further stated that in four years it had spread along the Mediterranean coast as far east as Athens, and northward through France and the southern portions of Germany and England. In 1874 it invaded northern Germany, in 1875, Ireland, and in 1876, Hungary ; in 1874 it also occurred in Finland, but with that exception, its most northern continental point has been Konisberg in northern Prussia. The centre of greatest development is along the Rhine. It has found its way to Australia and the Cape of Good Hope, but is said not to have yet appeared in North America.—S. C.

CULTURE OF WARSCEWICZELLAS.

THE *Warscewiczellas* form a small group of Orchidaceous plants closely allied to the genera (or sub-genera) *Bollea* and *Warrea*, and require the same kind of treatment which is found successful with them. We have seen them grown and thriving well under different methods, but nevertheless they are plants that require careful treatment, and must never be neglected. It is, for example, always necessary to give them close attention as regards the supply of moisture at the roots, for they have no thick fleshy pseudobulbs to afford them support should the artificial supply fail.

They grow in tufts of small short crowns, which can scarcely be called pseudobulbs, and it is from these that the leaves are developed.



J.L.Macfarlane del.

Apple Mr. Gladstone.

Thus being small growing plants, we find they do well on blocks of wood, the roots being surrounded by living sphagnum moss, and the blocks being suspended from the roof, but though exposed to light they must not be exposed to sun ; indeed, as the leaves are of a thin texture, they must be shaded, though all the light that can possibly be given them without exposing them to the direct sunshine must be afforded.

We find the cool end of the East India house to suit them, and here we give them a good supply of moisture at the roots during the summer season. They must always be kept moist, and should not be allowed to get dry even during the winter, for they are nearly always growing, and so require a continual supply of sustenance. If grown in pots or in pans, they will require less abundant moisture than when on blocks, but the supply must be continuous. One thing must always be borne in mind, and that is to keep them free from insects.—B. S. WILLIAMS, *Holloway*.

APPLE MR. GLADSTONE.

[PLATE 610.]

AMONGST early-ripening dessert Apples the variety we here figure seems destined to hold a conspicuous place, since it possesses at least two qualities which go a long way towards securing popularity, a pleasant taste and a high tone of colour, for which latter it will be prized as an ornament to the dessert even by those—if there be any—who do not highly estimate the flavour of Apples.

Though it has just now come rather suddenly into public notice, it does not appear to be a new variety, but to have been a chance seedling brought into notice by the late Mr. Jackson, of Kidderminster, in 1868, and distributed by him under the name of Jackson's Seedling. The original tree is said to be a very old one, and to be a sure bearer. It is described as being of slender bushy habit, very fruitful on the Paradise stock, and also productive on the Crab.

The fruit is scarcely medium size, roundish or oblate, furrowed, with a small but open eye, and a stalk of moderate length set in a narrow angular basin. The skin is a deep crimson on the exposed side and thickly streaked with crimson where shaded, the surface being

characteristically marked irregularly, here and there, with short bars or stripes of clear yellow. The flesh is tender, juicy and sweet, with an excellent flavour. Mr. Jackson states that with him it ripens in the latter half of July. A First-class Certificate was awarded to Mr. J. E. Lane, of Berkhamstead, for specimens exhibited before the Fruit Committee of the Royal Horticultural Society on August 14, 1883, and it is from some of these that our figure has been prepared by Mr. Macfarlane.—T. MOORE.

THE BENEFITS OF MULCHING.

IT is generally admitted by experienced planters, that a proper system of mulching plants of almost every class is of great advantage to them, not only as a protection to the roots, but by inducing the plants to root upwards, whereby they can receive the benefit of sun and air. It need not be argued that under such conditions the colour and flavour of fruit is greatly improved. The natural inclination of some plants to keep their roots near the surface, when means are allowed to maintain the upper crust of soil in a moist condition, and protected from a dry and scorching atmosphere, is very striking. Probably no plant shows this more than the Vine, which is also one of the readiest to go downwards after moisture when threatened with danger from drought on the surface.

Last season we placed a number of wide flat planks on the inside borders within a few feet of supernumerary Vines planted for temporary purposes. In the course of a few weeks we had occasion to move the planks, and the surface of the soil beneath them was matted with vine roots, white, and interwoven as closely as they could be. We placed a quantity of turves over them, and dusted a little of Thomson's Vine manure over the turves, and over this some old mushroom manure, and on examining them a short time ago the whole was found to be a mass of thread-like fibre.

In a range of peach-houses young trees were covered at the roots by turves fresh from an old orchard ; these were made firm, and in a short time they were matted with roots. With a large number of currants, gooseberries, young apple and plum trees, the same practice was adopted last season, and they were well mulched beside. The young roots are now well up to the surface, and are very healthy and vigorous.—M. TEMPLE.

NOMENCLATURE OF NARCISSI.

AT the Narcissus Congress of the Royal Horticultural Society, held on April 1, 1884, the following resolution proposed by H. J. Elwes, Esq., and seconded by J. G. Baker, Esq., was adopted, and a Committee was appointed to revise the names now in use, in order to adapt them as far as possible thereto :—

Resolved—"That, in the opinion of this Conference, uniformity of nomenclature is most desirable, and that garden varieties of Narcissi, whether known hybrids or natural seedlings, should be named or numbered in the manner adopted by florists, and not in the manner adopted by botanists."

The Revising Committee met on the morning of the following day, when the names of the flowers then present underwent revision and correction in the sense of the resolution. Mr. Elwes presided. Mr. J. G. Baker kindly undertook to frame a table showing the botanical relationship between the several plants, while to Mr. T. Moore and Mr. P. Barr was deputed the further task of filling in the names of other garden forms and monstrosities. The list here printed is the result of their joint labours ; the first portion showing Mr. Baker's grouping of the botanical forms, and the second portion the garden varieties arranged according to their botanical affinities.

THE CONGRESS CATALOGUE OF NARCISSI.

SERIES I.—GENUINE SPECIES AND THEIR VARIETIES.

[NOTE.—The names printed in the first left hand column represent the subgenera, those in the second indicate the admitted species, the third column contains the subspecies, and the fourth the varieties as understood botanically. The contents of a fifth column (garden forms) and a sixth (monstrosities) will be printed at the end, our page not being wide enough to take them in their proper position.]

MAGNICORONATI.

I. CORBULARIA—

1. *Bulbocodium*

conspicuus
citrinus

nivalis
Graelsii
monophyllus

II. AJAX—

2. *Pseudo-Narcissus*

Pseudo-Narcissus proper { the wild Daffodil
abscissus (muticus)
cambricus { connecting
lobularis { links between
Telamonius { Pseudo-
[P.B.] { Narcissus and
princeps [P.B.] { major

major

maximus
obvallaris [P.B.]

minor

pumilus
nanus
minimus

bicolor

moschatus

lorifolius { a connecting link
between Pseudo-
Narcissus & bicolor

albicans [P.B.]
cernuus
tortuosus

MEDIICORONATI.

III. GANYMEDES—

3. *calathinus*
4. *triandrus*

pulchellus
cernuus
concolor
nutans

IV. QUELTIA—

5. *incomparabilis*
aurantius
albidus
6. *odoros* (*calathinus*, Hort.)
laetus
7. *juncifolius*
apodanthus
rupicolus

PARVICORONATI.

V. HERMIONE—

8. *Jonquilla*
9. *Tazetta*
dubius
intermedius

bifrons
primulinus
bicrenatus
radiatus

pachybulbus
orientalis
canariensis
mediterraneus

ganymedooides

polyanthos
ochroleucus
papyraceus (unicolor, nivus)

Luna

Barlae

Panizzianus
italicus
chrysanthus

Bertolonii

aureus

10. *viridiflorus*
11. *serotinus* { autumn flowerers
elegans
obsoletus }

VI. EUNARCISSUS—

12. *poeticus*

stellaris
recurvus
poetarum
radiiflorus (angustifolius, Ait.)

VII. AURELIA—

13. *Broussonetii*

[Five of the preceding 13 species are, practically speaking, out of court as garden plants.]

SERIES II.—HYBRIDS, KNOWN OR PRESUMED.

[NOTE.—Of these the first column of names represents what are regarded as primary types ; those in the second are regarded as secondary types.]

MEDIICORONATI.

1. *Humei* (Hume's hybrid) : *incomparabilis* × *Pseudo-Narcissus*
albidus
concolor

2. *Backhousei* (Backhouse's hybrid) :

3. *Macleai* (Macleay's hybrid) : *Pseudo-Narcissus* ×
Tazetta
Nelsoni
Bernardi [P. B.]
Sabini
tridymus

4. *Leedsii* (Leeds' hybrid) : *montanus* × *Pseudo-Narcissus*
 Vincenti
5. *Barrii* (Barr's hybrid) : *poeticus* × *Pseudo-Narcissus*
6. *poculiformis* = *montanus* (Salisbury's hybrid) : ? *papyrus*
 raceus × *moschatus*
 galanthifolius
 Dr. Masters

PARVICORONATI.

7. *gracilis* : *juncifolius* × *Tazetta*
 tenuior
8. *Burbidgei* (Burbidge's hybrid) : *superpoeticus* ×
 Pseudo-Narcissus
9. *biflorus* : ? *poeticus* × *Tazetta*
 albus
- [Nos. 3, 6, 7, 9 are old, the others recent.] J. G. B.

GARDEN VARIETIES OF SPECIES (SERIES I).

2. *Pseudo-Narcissus*—
 albus—*luteus*—*pallidus*—*Nelson*—*scoticus*—
 serratus
 sub-group : F. D. C. Godman—*Nell Barry*—
 Stansfield—*variiformis*—*Wolley Dod*.
- 2a. *nobilis* of Redoute.
- 2b. *lobularis*—
 amplicorona.
- 2c. *major*—
 Beaconsfield—*Backhouse's Queen*—*Captain Nelson*—*Corporal Trim*—*Cleopatra*—*Chinese Gordon*—*Eliza Turck*—*Evening Star*—*Green-back*—*Gertrude Jekyll*—*Gladstone*—*Golden Prince*—*Her Majesty*—*Hudibras*—*Havelock*—*John Nelson*—*J. G. Baker (volutus)*—*John Vincent*—*John Bright*—*Joseph Chamberlain*—*Khedive*—*Little Princess*—*Lady Doneraile*—*Lord Mayor*—*Mr. Engelheart*—*Mrs. H. J. Elwes*—*Mrs. Gladstone*—*Mrs. Shirley Hibberd*—*Mrs. Nelson*—*maximus*—*M. J. Berkeley*—*Marie Louise*—*major luteus*—*major superbus*—*Morning Star (stellatus)*—*Peri propinquus*—*Prince George*—*President Arthur*—*President Lincoln*—*spurius*—*spurius coronatus*—*Sir Charles Dilke*—*Sir W. Harcourt*—*St. Bridgid*—*Shirley Hibberd*—*Sharman Crawford*—*Seraph*—*Thomas Moore (Moreanous)*—*Thomas Spanswick*—*Townshend Boscowen*—*Tottenham Yellow*.
- 2d. *bicolor*—
 Alfred Parsons—*Archbishop Haynauld*—*breviflos (bicolor Bot. Mag.)*—*Dean Herbert (primulinus)*—*Duke of Edinburgh*—*Duchess of Edinburgh*—*Empress*—*George H. Barr*—*grandis (maximus)*—*Horsfieldii*—*Harrison Weir*—*James Walker (albidus)*—*J. B. M. Camm*—*Jeannette*—*Mrs. J. B. M. Camm*—*Mrs. Harrison Weir*—*Michael Foster (sulphureus)*—*Mrs. M. Foster*—*Murrell Dobell*—*President Garfield*—*Prince of Wales*—*Peabody*—*Sir R. Peel*—*T. S. Dorrien-Smith*—*William Robinson*.
- 2e. *lorifolius*—
 A. F. Barron—*anceps*—*Emperor*—*Edith Barber*—*J. W. H. Barr*—*Lady Dorothy*—*Mrs. W. Goldring*—*Lord Derby*—*P. R. Barr*—*rugilobus*.
- 2f. *moschatus*—
 cernuus pulcher—*Mr. Cowan (Cowani)*—*Cecilia de Graaf*—*Dr. Hogg*—*Duchess of Connaught*—*Exquisite*—*F. W. Burbidge*—*G. F. Loder*—*Lady Grosvenor*—*Mr. Milner (Milneri)*—*Mrs. F. W. Burbidge*—*Marchioness of Lorne*—*pallidus præcox*—*Rebecca Syme*—*Sir Stafford Northcote*—*Sarah Tisdale*—*William Goldring (longipetalus)*.
5. *incomparabilis*—
 concolor—
 Autocrat (expansus)—*Bella (minor)*—*Blucher*—*Chang*—*Edward Hart*—*Eclipse (grandiflorus)*—*Hector*—*Jenny Lind*—*Provost*—*Sunray (stellatus)*—*Sycorax*—*Wellington*.
- Leedsii—
 C. J. Backhouse—*Figaro (expansus)*—*Fairy (marginatus minor)*—*gloria mundi*—*Glow (marginatus)*—*Mrs. A. F. Barron*—*Sunlight (stellatus)*—*Titan (grandiflorus)*.
- sulphureus—
 Astraea (aureo-tinctus)—*Beauty*—*C. H. Dee*—*Darling (marginatus)*—*Gil Blas (stellatus)*—*Hogarth*—*John Bull (expansus)*—*Johnny Sands*—*Magog (grandiflorus)*—*J. F. Meston*—*J. T. D. Llewelyn*—*King of the Netherlands*—*Longshanks*—*Mrs. Meston*—*Nabob*—*Queen Sophia*—*Queen Mab (marginatus minor)*—*Sir Christopher Wren*.
- albidus—
 Annie Baden—*Adonis*—*Albert Victor*—*Bianca (expansus)*—*Bride*—*Cupid (stellatus)*—*Cynosure (albidus Leedsii)*—*Fitzjames*—*Gog (grandiflorus)*—*Jane Kolle*—*Lorenzo*—*Vesta*.
- pallidus—
 Princess Mary of Cambridge—*Prince Teck*—*semipartitus*.
- albus—
 Consul Crawford—*Charles Hooper*—*Claribel*—*Dove*—*Dr. Gorman*—*Duke of Buccleuch*—*Fair Helen (elongatus)*—*formosus*—*G. F. Wilson*—*Harpur-Crewe*—*H. C. Smith*—*James Bateman*—*Marmion (aurantius)*—*Montrose*—*Mrs. C. J. Backhouse*—*Mrs. G. F. Wilson*—*Poiteau*—*Queen Bess (albus magnificus)*—*Roland (expansus)*—*Rosa Bonheur*—*Stella*—*Surprise*—*William Bull*.
- giganteus—
 James Dickson (Sir Watkin).
6. *odoratus*—
 Campernelli—*trilobus*—*interjectus*—*rugulosus*—*minor (pseudo-juncifolius)*—*heminalis*.
8. *Jonquilla*—
 major (large Jonquil)—*medius (lesser Jonquil)*—*minor (least Jonquil)*.
9. *Tazetta*—
 White with yellow cup : *Bazelman major*—*Florence Nightingale*—*General Wyndham*—*gloriosus*—*Grand Monarque*—*Grand Primo Citronnier*—*Grootvoorst*—*Her Majesty*—*orientalis*—*Queen of the Netherlands*—*Sir Walter Scott*—*Staten General*.
 Yellow with yellow cup : *Apollo*—*Bathurst*—*Jaune Supreme*—*Lord Canning*—*Sir Isaac Newton*—*Soleil d'Or*—*Sulphurine*.
 White with white or whitish cup : *lacticolor*—*Louis le Grand*—*Luna*—*Paper White*—*præcox*.
12. *poeticus*—
 March or April flowering varieties—
 ornatus—*poetarum*—*radiiflorus (angustifolius)*—*tripodalis*. [It is no unusual thing for these to throw two or sometimes three flowers on a scape, but this peculiarity is not permanent.—P.B.]
 April or May flowering varieties—
 poeticus verus—*recurvus*—*patellaris*.

GARDEN VARIETIES OF HYBRIDS (SERIES II).

1. *Humei*—nodding flowers with straight cup, nearly as long as dog-eared floppy perianth, tube variable in length; it connects the section *Ajax* with *Queltia*.
 Hume's White—*Hume's Sulphur*—*Hume's concolor*—*Hume's Giant*.
2. *Backhousei*—bold habit; flowers horizontal with distinct basal tube, and long cup nearly equaling the spreading perianth; a connecting link with *Ajax*.
 Cupid—*Daisy*—*H. J. Elwes*.
3. *Macleai*—sturdy habit, 1–2-flowered; flowers small, horizontal, with short tube, spreading perianth, and cylindrical cup.
 major (Sabini)—*Parkinsoni*.

- 3a. Nelsoni—1-flowered; flowers horizontal, with short tube below the broad spreading perianth, the cup cylindrical, rarely expanded at the mouth.
aurantius—expansus—Margaret Jones—major—minor—pulchellus.
- 3c. tridymus—near Nelsoni, but with somewhat more obconical tube, 1 to 3 usually 2-flowered; flowers varying much in size from that of Macleai upwards.
A. Rawson—Duke of Albany—Duchess of Albany—Grand Duke of Hesse—Innocence—Princess Alice—S. A. de Graaf.
4. *Leedsii*—flowers horizontal or drooping with a long slender tube, spreading or dog-eared pallid perianth, and pale yellow cup varying from canary yellow to whitish, generally dying off white; differing from incomparabilis in the paler hue of its cup.
amabilis—Acis—Aglaia—Alexis—Albion—Ariadne—Arsinöe (gloriosus minor)—Beatrice—Ceres—Circe (gloriosus)—Cybele—Duchess of Westminster—elegans—Fanny Mason (Vincenti gloriosus)—Favourite—Fides—Flora McDonald—Flora—Gem—grandis—Grand Duchess—Grand Duke—Hon. Mrs. Barton—Horner—Ianthe—Io (stellatus)—Juno (galanthiflorus major)—Katherine Spurrell—Leda—Madge Mattheuw—Mrs. Langtry—Mignonne—Maude—Minnie Hume—Maria M. de Graaf—Mrs. Barclay—Madame Patti—Oddity—Purity—Princess of Wales—Palmerston—Queen of England—superbus—Venus (galanthiflorus minor).
5. *Barrii*—usually dwarf and slender in habit; flowers horizontal, with long slender neck or tube, and spreading segments twice or more the length of the short expanded cup. (See *Burbidge's Narcissi*, t. 22, as illustrating the main features of the group.)
Bullion—conspicuous—conspicuous minor—Lass o' Gowrie—Golden Mary—major—Model.
sulphureus—
Amy—Herbert von Bismarck—Milton—Prince Bismarck.
- albidus—
Ada—Beatrice Murray—Cinderella—Eclipse—elegans—Gazelle—General Murray—Jewell—John Stevenson—Lucy—Mrs. Darwin—Mrs. Murray—Maurice Vilmorin—Miriam Barton—Piccio—Romeo—Sylvia—Vivian.
- albus—
Betsy—Climax—Diana—Dirk de Graaf—Exquisite—Golden Star—Heroine—Jewess—Lilliput—Lady Gray—Sensation—Silver Star—William Ingram.
6. *poculiformis*—1—2-flowered; flowers nodding, white, with a long slender cylindrical tube, and a straight-sided cup, about half as long as the spreading, twisted, somewhat floppy perianth.
7. *gracilis*—rush-leaved, 1—3-flowered; flowers yellow, horizontal, with long slender tubes, spreading perianth, and shallow cup; late flowering.
8. *Burbidgei*—habit of poeticus; flowers horizontal, mostly white, with long slender tube, and usually with a shallow spreading cup, which is frequently stained on the rim more or less distinctly with orange red.
Arabella—Ariel(albidus)—Alice Barr—Agnes Barr (delicatus)—Amoret—Baroness Heath—Beatrice Heseltine—Boz (luteus)—Blanche—conspicuous—Cowslip—Crown Prince—Crown Princess—Dandy (stellatus)—Edith Bell—Ellen Barr—Empress Eugénie—elegans—Ethel—Golden Gem—gracilis—Guinever—Johanna—John Bain (grandiflorus)—J. Golden Read—Jeanie Deans—Joe—Little Dirk—Lottie Simmons—Little John—Mary (expansus)—May—Marvel—Model—Ossian—Pearl—Primrose Star—Princess Louise—

Robin Hood—Sulphur Star—Thomas Moore Absolon (grandiflorus expansus)—Vanessa.

MONSTROSITIES.

2. *Pseudo-Narcissus*—
plenus—Telamonius plenus—lobularis plenus—lobularis grandiplenus—nanus plenus [said by Dr. Brown, of Hull, to have been raised by him from seed, one bulb only, and sent by him to the Conference; one bulb also received amongst bulbs of nanus from Lincolnshire, by Mr. T. S. Ware; supposed to be the only double *Narcissus* raised since the time of Parkinson.—P. B.]—cernuus plenus—cernuus bicinctus—capax plenus (eystettensis, Queen Ann's Double Sulphur Daffodil) [no person has yet satisfactorily determined which is the single form of this plant.—P. B.]
5. *incomparabilis*—
aurantius plenus (Butter and Eggs)—albus plenus aurantius (Eggs and Bacon, Orange Phoenix)—albus plenus sulphureus (Codlings and Cream, Sulphur Phoenix) [the supposed single form of this is semipartitus.—P. B.]
6. *odorus*—
minor plenus (Queen Ann's Double Jonquil).
8. *Jonquilla*—
plenus (Double Jonquil).
9. *Tazetta*—
romanus (Double Roman)—nobilissimus.
12. *poeticus*—
plenus (Gardenia-flowered).

It should perhaps be explained in justice to the real workers in this field, that of the foregoing hybrids, No. 1 Hume's hybrid, No. 5 Barr's hybrid, and No. 8 Burbidge's hybrid, bear names which are merely complimentary, the individuals thus complimented having had nothing whatever to do with the raising of the plants. The merit which attaches to the several productions belongs almost wholly to the late Mr. Leeds of Manchester, and the late Mr. Backhouse of Weardale, and it is to the efforts of these gentlemen that we are indebted for so large and valuable an accession to the forms of these beautiful flowers which are now available for the decoration of our spring gardens. The exceptions are very few indeed, consisting mainly of the varieties named Gertrude Jekyll and Dr. Masters, which were raised by the late Rev. J. G. Nelson, and some three or four forms due to the labours of M. Max Leichtlin, of whom we may probably yet hear more in this connection, as we believe that gentleman is still earnestly occupied in the good work.—T. M.; P. B.

CELOSIAS.

CHESE are extremely valuable plants, being very ornamental, of a free flowering habit, and of easy culture. For the decoration of the conservatory during the autumn months they are invaluable. To have them a considerable time in flower two sowings should be made, the first about the first week in April, and the second about the first week in May. The seeds should be sown in shallow pans, and these should be plunged in a very gentle bottom heat; they

will soon vegetate, and as soon as the young plants are large enough they should be potted off into small pots, using a compost of about half loam and half peat, with a little white sand. When potted, they should be plunged in a gentle bottom heat. They should be kept near the glass, and not be set too close together. The plants, if kept at a distance from the glass and crowded, will grow up weakly, and lose the bottom leaves. They should have plenty of air in mild weather. When the plants begin to fill their pots with roots they should be shifted into their flowering pots, using a little rotten manure in the compost. When shifted they should be again plunged in a gentle bottom heat; they will grow and flower without bottom heat, if they are kept in an intermediate house, but they will do better with a little bottom heat. By keeping the plants near the glass, giving them plenty of room and a gentle bottom heat, they will grow strong and stiff with healthy foliage, and the plants, if the strains be good, will be useful and beautiful for decorating.—M. SAUL.

GARDEN WALLS AND WALL BORDERS.

THE occupants of the wall are the objects of first importance: the healthy development of the trees, and the production of first class fruit, the ambition of every good gardener. But on the other hand the production of choice early vegetables is an object scarcely less important. To secure the coveted early dish of Peas, Potatos, Cauliflower, French Beans, &c., the south border, the sunniest nooks, are called into requisition. The problem to be solved by the gardener, therefore, is the way in which wall borders can be made available for both these purposes, viz., the growth of the wall trees, and the growth of early vegetables.

From conversations I have had with good gardeners on this subject I am sure it is one which at the present moment is occupying the thoughts of many; and although this is not quite the proper time to give effect to my ideas and practice, they may assist in maturing opinions, and deciding on the course to be adopted when the autumn comes round again.

My system is to trench [the borders to the bottom, to within 3 feet of the wall, cutting

away all roots to within that distance every autumn, or every alternate autumn, early in October, if possible. In this way the trees become furnished with a large number of new feeders every year, which avail themselves of the feeding ground made new by manuring and trenching. Trees treated in this way from their first planting form a mat of roots, and if well mulched with recent stable litter, and watered in hot dry weather, luxuriate and swell finer fruit than trees whose roots are allowed to ramble at will. Old trees also improve under such treatment, and the production of first-rate early vegetables is secured, not only without injury to the trees, but the trees are positively improved by such treatment.

I ought to say that in trenching, the surface of the 3 feet space left untouched by the spade should be carefully forked off down to the roots, and replaced by soil from the border as the trenching goes on, and in this way the trees receive a thorough top dressing.—HENRY ECKFORD, *Boreatton Park, Banchurch.*

REGISTER OF NOVELTIES. NEW FLOWERS.

AMARYLLIS.—*Colonel Burnaby*, a very large flowered variety; colour brilliant scarlet; very showy and striking; 1st-class Certificate R.H.S., March 25. *Mrs. Shirley Hibberd*, one of the Leopoldi race, flowers of fine shape; colour very deep crimson tipped with white; a very pleasing variety; 1st-class Certificate R.H.S., March 25. *Sir Redvers Buller*, a very large flowered variety with broad overlapping petals of thick texture; the colour vivid scarlet, with a broad stripe of white running down each petal; 1st-class Certificate R.H.S., March 25. *Virgo*, a very bright-looking variety, the flowers medium sized and of excellent shape, the colour vivid scarlet banded and netted with white; 1st-class Certificate R.H.S., April 8. *Zitella*, a hybrid partaking of the character of the old *A. marginata*; the flowers large, with recurved segments; the ground colour carmine striped and banded with white; all from Messrs. Veitch & Sons.

AURICULAS.—*Hetty Dean*, a charming yellow self, with a rich golden tube, solid paste and a broad margin of deep golden yellow; a useful addition to a very limited class; 1st-class Certificate R.H.S., March 25; R. Dean. *Conservative* (Douglas), a fine white-edged variety, golden tube, solid white paste and black body colour, fine form and very handsome truss; 1st-class Certificate R.H.S., April 8; C. Turner.

AURICULA (Alpine).—*Mungo McGeorge*, deep yellow centre, margined with deep maroon crimson shading to a paler hue; fine form and distinct; 1st-class Certificate R.H.S., April 8; C. Turner.

AZALEA (Indian).—*Comte de Paris*, flowers very large, single, and of fine form; colour salmon pink broadly edged with white, spotted and blotched with carmine. *Comte de la Torre*, semi-double; colour

pale salmon-pink flaked with a deeper hue and heavily blotched in the centre. *Baron Nathaniel de Rothschild*, double, bright rosy purple; flowers of fine form and quite distinct in character. *Souvenir de Duc d'Albany*, semi-double, very large, snow white, fine shape and quite distinct. *Souvenir du Prinz Henri*, double, flower full, fine form; colour rosy carmine; a very pleasing variety. *Mdlle. Marie Stockman*, semi-double, flower pure white, moderate in size, very handsome, and one of the very best white varieties. *B. S. Williams*, single, flowers very large, colour rich rosy carmine blotted with crimson. *John T. D. Llewelyn*, double, flowers large and full, colour delicate fleshy-pink, broadly edged with white and heavily blotched with crimson in the centre. *Comte Adrien de Germiny*, single, distinct in character, moderate in size; colour bright rosy carmine, with rosy purple markings on the upper segments; 1st-class Certificates to all the foregoing, R.H.S., April 8; all from Louis Van Houtte. *Princess of Wales*, a free flowering variety with moderately sized pure white flowers of good shape; 1st-class Certificate R.H.S., April 8; W. Nicoll.

CARNATIONS (Tree or Perpetual Flowering).—The following new varieties are being distributed by Mr. C. Turner, and are all of his own raising:—*Burgundy*, dark maroon, large and full. *Conqueror*, salmon rose, slightly striped with purple. *Duke of Albany*, deep rich scarlet, extra fine. *Egyptian*, dark maroon, large and full. *Enchantress*, deep pink, flaked with dark purple. *Field Marshal*, deep scarlet, extra fine, large and full. *Fire King*, pale yellow ground, heavily edged with scarlet. *Hector*, bright red, large and fine. *Juliette*, deep rose, fine smooth petals, large full flowers and good habit. *Lady Bramwell*, large rose, smooth and good. *Lady Lonsdale*, bright rose, smooth, very pleasing. *Lady Mary Turner*, deep orange ground, heavily edged and barred with red, large, full and fine. *Lord Derby*, bright scarlet, smooth and very good. *Lord Rokeby*, very bright scarlet, dwarf free habit. *Mr. Llewelyn*, bright rose, large, full and finely formed. *Ruby*, crimson-purple, fine and pleasing. *Rufus*, rich scarlet, very bright, full and finely formed. *Seraph*, beautiful deep rose, extra fine. *Victory*, buff ground, edged with bright red, large and full. *Whipper-in*, scarlet, with very dark stripes, large and very free.

HYACINTHS.—*General Gordon*, s.b., rich shining blue, very fine bells and spike; handsome and distinct; 1st-class Certificate R.H.S., March 26. *General Graham*, s.b., glistening violet-purple, in the way of Duke of Connaught, but a reddish purple, finely shaped segments, and handsome close spike. *Harlequin*, s. mauve, a kind of dull purplish puce colour, pale centre, stout well formed segments, and fine bells; a distinct and novel variety; 1st-class Certificate R.H.S., March 25; R.B.S., April 26. *Minerva*, D.Y., pale creamy sulphur, or canary yellow, with a slight tinge of pale reddish pink along the segments, a decided and valuable addition to the double yellows. *Lady of the Lake*, s.y., pale yellow, symmetrical bells and spike; a good addition to this class. *General Roberts*, s.r., bright red in colour, narrow in the spike, fine bells, but wanting in evenness and symmetry: *Lord Derby Improved*, s.b., the colour deeper blue than Lord Derby, the reverse rich blue; fine spike, and massive well-shaped bells; 1st-class Certificate R.B.S., March 26; Veitch & Sons.

NARCISSUS (*Incomparabilis*).—*James Dickson* (alias Sir Watkin), a large and very fine form of the Peerless Daffodil; the sepals primrose yellow; the large corona rich deep yellow; a real acquisition; 1st-class Certificate R.H.S., April 8; J. Dickson & Sons. (*Bicolor*) *J. B. M. Camm*, a pretty variety with flowers almost as large as those of Horsfieldi, the sepals white, the trumpet soft prim-

rose yellow; *Queen of the Netherlands*, a pleasing variety remarkable for the very shallow, deep-orange cup of the flower. (*Leedsi*) *Queen of England*, an attractive variety with large flowers having pure white sepals and a clear yellow cup widely expanded; 1st-class Certificate to the three foregoing R.H.S., April 8; Barr & Son.

PELARGONIUM (Show).—The following new varieties raised by E. B. Foster, Esq., are being offered for the first time by Mr. C. Turner:—*Adventurer*, rose lower petals, with narrow edge of deeper rose; maroon spot on top petals, white centre; large flower of fine form. *Brilliant*, brilliant scarlet, one of the brightest varieties yet raised, dark spots, extra fine, dwarf habit. *Confessor*, black top petals, margin of rose; rose lower petals, white centre, large and of the finest form. *Doncaster*, maroon top petals, orange rose lower petals, paler edges; white centre, large, and of fine form. *Fille de l'Air*, a charming variety, small black spot on the top petals which are richly lit up with orange; bright rosy spots on lower petals, white centre and edges. *Neptune*, rich scarlet, small black spots, fine quality and very free. *Pioneer*, orange scarlet, maroon spot, white centre, free and effective. *Retreat*, deep rose, maroon spot, white centre, very free.

ROSA POLYANTHA.—*Anna Marie de Montravel*, a charming new variety, with large clusters of pure white flowers borne on almost every twig; an excellent addition to this interesting Section; 1st-class Certificate R.H.S., March 25; H. Bennett.

WALLFLOWERS.—*Bedfont Giant Yellow*, a very fine new pure yellow-flowered variety, remarkable for its dwarf sturdy growth and wonderful freedom of bloom, the flowers well expanded; very early and of first-rate quality; 1st-class Certificate R.H.S., March 26; R. Dean. *Cranford Beauty*, a fine pure yellow-flowered variety, of somewhat tall growth, but the flowers loose and floppy; very free and attractive; J. Graham.

GARDEN GOSSIP.

THE Primrose in its polyanth form, especially in the cross-fertilised breed called **POLYANTHUS PRIMROSES**, which commence blooming by throwing up solitary and afterwards produce bunched flowers, is exciting much attention, and in the improved form they have now assumed they are most charming as hardy spring flowers. The colours are varied beyond description, and many of the choicer ones are really superb. Mr. A. Waterer has worked up a very fine strain, large numbers of which potted up for transport have been shown in London, Manchester, and Liverpool during the present spring, and created quite a *furore* amongst lovers of hardy plants. One called *Princess of Wales*, noticed at p. 59, under the erroneous name of *Princess Royal*, is perhaps the finest yet obtained. About the end of March we also received a box of flowers of a very beautiful strain, quite distinct from the foregoing, from Mr. E. J. Lowe, of Shirenewton Hall. The most distinct and effective of these were the blue-purples, of which several variations occur. Others with crimson or maroon or rosy-red grounds and a central white stripe in each segment are very effective; and so are what Mr. Lowe calls carnation-striped forms of which there is great variety, the face of which presents numerous streaky markings which gave to them a mottled appearance. No one fond of spring flowers can do wrong by taking up with either of these strains and others that are available, and growing or seeding and raising for themselves. Plants raised

as soon as the seed is ripe get strong and bloom freely the next year if properly handled.—M.

— THE beautiful *PHAIUS TUBERCULOSUS* is very successfully managed by Mr. Billiard, the gardener at Laurie Park, Sydenham, who has succeeded not only in growing it well but also in flowering it freely. *P. tuberculosus* was collected in Madagascar by Humbot, and introduced, together with the equally beautiful *P. Humbotii* and *P. Henryi*, by Messrs. Sander & Co., of St. Albans. In 1881 Sir Trevor Lawrence flowered it, but since that time the efforts of most of the growers have been defeated by the plant, Mr. Billiard alone having obtained continued success. This year his plants have again flowered, one of them, a very grand variety, having eleven flowers on two spikes. The plants are growing in a shady corner of the Phalaenopsis-house (temp. 65°—70°), where they get plenty of air, but no cold current. They are kept moist all the year round, and, what is considered as important, they are generally sponged over once a week, as that has been found to be the only means of keeping off the thrips which seem very fond of the plant. The manner in which the plants are potted is peculiar, and it may supply a clue to others by means of which they may get better success in future. The pots (which must be large) are filled two-thirds with crocks and charcoal, a layer of peat is placed on this, then the plant is held in position and filled round with living sphagnum moss. When so fixed the plant is in precisely the same condition as it would be if growing on the surface of a bog, and it is probable that that is its natural position. So potted, it may receive copious waterings with rain-water and never get sodden. The chief points to be observed after the plants are so potted, are to keep them shady and always moist, to sponge them frequently, and to keep them in a warm but not close place. There is great variety in the plant; sepals and petals white; lip crimson, rose, and yellow in different shades.

— THE best STOCK FOR THE CAMELLIA is unquestionably the old single red variety, cuttings of the young ripe wood of which can be put in either in spring in heat, or in a cold frame in November. In the latter case a callus is gradually produced, which is the precursor of roots that will be developed by the aid of a little moist heat (60 deg. to 65 deg.), in March or April following. A gentle hotbed, or the bed of a small propagating house, will answer well for striking them. Whatever the medium used to obtain bottom heat—whether tan, dung, leaves, or a hot-water tank or pipes—a layer of about three inches of suitable soil consisting of turf loam and fibry peat (two parts of the latter to one of the former), with a liberal admixture of silver sand, must be put, and on this an inch of sharp silver sand. Cuttings of the ripe young wood must then be prepared and inserted at convenient distances, each cutting being fixed quite firmly and no leaves being removed except those just at the base of the cutting. When the cuttings are inserted, they should be watered overhead through a fine rose, to settle the soil about them; and when the leaves become rather dry a clean well-glazed hand-glass is to be placed over them, pressing it down, so that its lower edge may pass into the wet sand and completely exclude the air. Success will mainly depend on the closeness of the covering, shading from mid-day sun, and a moist soil. The growth of young wood, and the firm adherence of the leaves, will indicate the development of roots.

— WE learn that a Committee has been

formed with the view of rendering much needed pecuniary aid to DAVID JACKSON, THE MIDDLETON FLORIST. The Committee consists of the Rev. F. D. Horner, Mr. S. Barlow, Mr. R. Gorton, and Mr. W. Brockbank, of Brockhurst, Didsbury, who acts as Secretary. During the last fifty years there has been no better known or more remarkable florist amongst the working men of Lancashire than David Jackson. In his hands the Tulip, the Auricula, and the Polyanthus were successfully cultivated, and so exact was his knowledge and so sound his judgment that no one was more frequently chosen to act as judge in floral matters. David Jackson is respected by every one who knows him as a sterling, honest, and upright working man, and a first-rate florist. He has been a weaver by trade, his wife also plying the shuttle by his side; but hand-loom weaving is now slack, the aged couple cannot further pursue their calling, their hardly earned and carefully saved store is nearly exhausted, and the time has arrived which throws a duty upon those who have the means, and are willing to help so deserving a couple in their old age.

— THE New JAPANESE OAK, *Quercus serrata*, is a highly ornamental species with foliage exhibiting a decided resemblance to that of the Sweet Chestnut of Europe. It is quite hardy in this country, and from its handsome appearance and distinct habit is thoroughly worthy of more general cultivation. In Japan it is widely distributed, and forms one of the most useful timber trees. It has lance-shaped leaves 4—8 inches in length, deep green above and lighter below, the parallel veins produced beyond the edge of the leaf into slender spine-like teeth. *Q. serrata* is also found in China, the Himalayan region, and in Persia.

— HYACINTHS it seems are sometimes SPORTIVE. Thus Mr. Krelage of Haarlem, writes to the *Gardeners' Chronicle* concerning the reversion of the Single Red Charles Dickens to the original blue variety. He writes—the single blue Hyacinth Charles Dickens is one of those varieties generally known and appreciated; it is cultivated in Holland on the largest scale, and not only tens of thousands, but hundreds of thousands of bulbs are sold annually to foreign buyers. As is generally known in Holland, occasionally a single plant of Hyacinth will change its colour, although grown in the same way as others—a form of "atavism," or reversion to the colour of one of the parents from which the variety was raised. The usual alteration in colour, although others occur, is from blue to white or red. So among the plants of the blue variety Charles Dickens, plants here and there have been found which gradually or at once become red. This red sport of the blue Charles Dickens was found at the same time in more than one garden, so that several different stocks were grown, among them some which have never changed, and of which all the offspring keep the pure red colour; but one which proves changeable, and in which some of the blooms are half-red; half-blue; these variations do not become fixed, as the half-blue, half-red flowers are sometimes totally red in the following year.

— AMONG Basket Ferns, the pendulous *ASPLENIUM LONGISSIMUM* from Penang is one of the best when the basket is of large size. Its blackish stipes with its pinnate dark glossy green fronds reach from six to seven feet in length, and

are produced in great abundance from a thick and slightly creeping caudex, so that, being evergreen, the plant is well furnished at all seasons; the pinnæ are sessile and auriculate, deeply serrate and acuminate, and of a more leathery texture than those of most basket Ferns, and in consequence the duration of the fronds is greatly prolonged, while the dark-coloured rachis, by contrast with the full green pinnæ, adds much to the beauty of the whole.

— In order to obtain MINIATURE GREEN-HOUSE RHODODENDRONS of the recent jasminiflorum and hybrid jasminiflorum types, it is recommended to take the tops of the shoots when of the length of three or four inches, and when the bloom bud is commencing to form. These cuttings are struck in cutting-pots, and when the flowers are about to unfold the pot is placed in a small pan filled with moss and hung up close to the glass. In this situation the flowers expand, and form delightful ornaments to the house. This plan has been devised in Messrs. Veitch's establishment.

— THE new BEDDING LOBELIA PRIMA DONNA, now being sent out by Messrs. Carter & Co., is a very pretty and interesting addition to its class; and from its dwarf tufted growth and the singular freedom with which it yields its blossoms, is likely to prove a very useful bedding plant. As seen growing last summer in masses in the seed grounds at St. Osyth it was very pleasing. The colour is a maroon crimson. It stood the severe test of being exhibited after lifting from the open ground, and won a 1st-class Certificate from the Floral Committee.

— THE PYRAMIDAL OAK ought to be better known, and more frequently planted than it is. It is a variety of British Oak with the habit of a Lombardy Poplar. A correspondent of *Woods and Forests*, an excellent paper devoted to forestry, states, that in Vienna, in one afternoon, he met with a dozen good specimens of this tree, some of them as slender and as graceful, and as erect-growing as the Lombardy Poplar, others somewhat more pyramidal towards the lower part. This variety in form makes the tree all the more valuable for lawn or garden; and, as a tree with character for landscape planting, there exists nothing more valuable.

— A NEW and ingenious STRAWBERRY TILE has recently been invented and exhibited by Mr. John Matthews, of Weston-super-Mare. It is intended for placing under strawberries, and so completely circumvents the snails and slugs that they can no longer feed on the luscious berries where these tiles are used. They are made of earthenware, in the form of quoits, but convex on the under-side, and cut in two, so that when in position they surround the collar of the plants. They are made in two sizes, viz., 15 inches and 18 inches in diameter.

— UNDER the title of GARDEN WORK (172, Fleet Street), a new penny weekly garden newspaper has appeared. So far it has furnished a good pennyworth of gardening information, and promises to worthily fill its appropriate place in the ranks of garden literature.

— TO DESTROY MOSS ON TREES, it is sometimes recommended to sprinkle freshly-powdered lime on the moss in damp weather.

A better way is first to scrape off the moss with a light hoe, or the back of a knife, and then to wash the bark with lime-wash made from fresh lime, so thin as to give a slightly white appearance when dry—that is, with a consistency half-way between lime-water and white-wash.

In Memoriam.

— MR. EDWARD MILNER, the eminent landscape gardener, died on March 26, at Dulwich Wood, Norwood. He was born at Darley, in Derbyshire, educated at Bakewell Grammar School, and apprenticed to Sir Joseph Paxton, head gardener to the Duke of Devonshire. After his apprenticeship he went to Paris to study for four years, chiefly at the Jardin des Plantes; and after travelling through Europe returned to England, where he visited and reported on many of the principal gardens for Dr. Lindley. In 1844 Sir Joseph Paxton entrusted to him the work of superintending the laying-out of the Prince's Park, Liverpool, which work was most successful. Mr. Milner also carried out the extensive garden works connected with the Crystal Palace at Sydenham, under Sir Joseph Paxton; and since their completion he has most successfully practised on his own account. His works, artistic samples of the natural style, were not confined to this country, but are well known in France, Belgium, the Rhine Provinces, Denmark, and Sweden. In 1851, when the Crystal Palace Company organised a School of Gardening, Mr. Milner accepted the position of Principal.

— MR. JAMES ATKINS died at Painswick, Gloucestershire, on April 2, aged 82 years. Mr. Atkins was originally a nurseryman, one of the old school, who, while not neglecting his business, grew his plants for the love of them. Since he retired from business, now many years ago, he has continued to cultivate Alpine plants with much ardour and success. Cyclamen Atkinsi, a hybrid between C. Coum and C. persicum, will perpetuate his name.

— MR. GEORGE RUDD died at Undercliffe, Bradford, Yorks, on April 14, aged 54 years. As a florist he was well known and much respected. We greatly regret to learn that Mr. Rudd, who lost his wife only four months since, leaves a family of seven children, six under twelve years of age, the youngest only four months, utterly destitute. We hope in our next issue to be able to record progress in some steps now being taken for the immediate relief of the poor orphans. Meantime our friend and fellow-labourer, Mr. E. S. Dodwell, Stanley Road, Oxford, will be glad to take charge, and see to the proper application of, any contributions our benevolently-minded friends may be disposed to send him. [E.S.D., 21s.; T.M., 21s., received.]

— THE DUKE OF BUCLEUCH, K.G., died at Bowhill, Selkirkshire, on April 16. The Duke was intimately connected with horticulture, not only as the owner of two of the finest garden establishments in the country, but in virtue of his association with the Royal Horticultural Society, the Royal Caledonian Horticultural Society, and the Gardeners' Royal Benevolent Institution. The latter Institution by his death has lost a munificent supporter.



J.L Macfarlane del.

Primula sinensis:

1. Queen of Whites. 2. Swanley Purple. 3. Princess Beatrice

NEW CHINESE PRIMULAS.

[PLATE 611.]

THE central figure of our plate represents one of the finest varieties which has yet been produced. It belongs to what is known as the fern-leaved section—a group of handsome forms which originated many years ago in a sport of the common kind, from seed, we believe, in which instead of the normal palmated outline the leaves took on the pinnated form which suggested the name of fern-leaved. The flowers in the original were of the lilac-rose colour which occurred in the earlier forms of this species, but by degrees other forms appeared combining the fern-leaf with the various shades of colours occurring in the flowers, until nearly or quite all the known varieties of hue were to be found associated with fern-like leaves.

The variety here figured as QUEEN OF WHITES (fig. 1) is one of the best yet obtained of this fern-leaved race, and like another excellent white sort, the Waltham White, has the peculiarity of combining white flowers and red-stalked leaves—a condition quite unknown in the early days of Chinese Primroses, when a red leaf-stalk assuredly foretold a red flower and a pale green leaf-stalk a white flower. Our present subject is a vigorous growing sort, quite one of the best,

DESCRIPTIONS OF THE

WE now proceed to describe the varieties of the class of Rose Flakes, a group of very charming flowers—

ROSE FLAKES.

APOLLO (*Fletcher*).—A seedling from James Merryweather, which it follows closely both in habit of growth and flower, too closely indeed to be shown as dissimilar; nevertheless as a younger life it is desirable. Like its parent this variety is much inclined to sport to a c.b., but as yet the permanency of these sports has not been determined.

CRISTA-GALLI (*Whittaker*).—A seedling from Lovely Ann—a grand old variety in its day—raised at Royton, in Lancashire; a very beautiful variety, remarkable for its fine white ground and very distinct through-markings of rich rose. At its best, I know few more beautiful flowers, but unfortunately it is a delicate grower, and therefore requires care and special attention to produce it in its full glory. First bloomed in 1868; sent out in 1873.

with large stout nicely-frilled pure white flowers, which are much set off by the presence of a central star about half an inch across, which is of a pale green distinctly and evenly bordered by orange-tinted yellow, a combination which adds much life and beauty to the flower. It is one of Mr. Cannell's productions, and when shown by him at South Kensington in December last it gained a 1st-class Certificate.

The SWANLEY PURPLE (fig. 2) is a very high-coloured and rich crimson-purple; one of the later acquisitions and one of decided merit, certificated along with the foregoing.

The variety called PRINCESS BEATRICE (fig. 3) is a very pleasing flower, not well reproduced by our chromolithographer. The colour is much brighter than our figure represents, being of a deep rose-pink or peach-blossom verging towards rosy-lilac; it is a well-formed stout-built flower, with a yellowish-green central star surrounded by a zone of white, the extreme edge being also white. It will be admired for its pleasing colour, which is chaste and delicate without losing the fulness of tint and tone which is necessary to brightness of effect. We look upon it as one of the most distinct and charming varieties which have come under our notice.—T. MOORE.

BEST CARNATIONS.—V.

DELICATA (*Dodwell*).—A seedling from John Keet, which it follows, with the exception that the colour is less pronounced. It is nevertheless a very pleasing variety, and will, I think, win general favour amongst the ladies. First bloomed in 1881; sent out last autumn.

DOROTHY (*Dodwell*).—"A flower of exceeding refinement; large, full, finely formed; of great substance, and beautifully marked with a pale rose, of a most attractive shade. Not offered as a class flower, but as one of the most pleasing E.S.D. has ever had the good fortune to see." This was the description wherewith I brought the variety to the notice of my fellow-lovers of the Carnation during the past autumn. I refer to it only that the flower is a proof of the breadth and comprehensiveness of the florist's taste. During the past year we had frequent dissertations in certain garden papers on the hard and fast lines of the florist, and the narrowness of his views, suggesting in the main the hopeless ignorance and narrowness of view of the writer. Well, this flower is a standing refutation of the charge, for limited

as from its very novelty its use must be on the exhibition table—as with Novelty, bizarre-edged Picotee amongst Picotees—it was unquestionably *the* flower of the Slough Show, and attracted more notice and admiration than any other Carnation shown. Forty years ago there may have been some ground for assuming narrowness and indefensible exclusions on the part of the florist—but that is past, and writers who now harp on such themes merely illustrate their own inability to keep abreast of their time. Dorothy is a seedling from Mayor of Nottingham. First bloomed in 1881; sent out last autumn.

EGLANTINE (Gorton).—A sweet flower. Like Delicata, a seedling from John Keet, with a less pronounced tint of colour in the flake; of full size, smooth, and fine quality. A variety indeed which would fill a high place were it not surpassed and overshadowed for all purposes by other flowers of Mr. Gorton's, presently to be described. First bloomed in 1880.

JAMES FLOWDY (Flowdy).—A variety sent to me last year by Mr. Flowdy, of Gateshead. A well-marked large and distinct variety, something in the way of James Merryweather, though scarcely so bright as that fine old flower; but I should state that the plants sent had been taken apparently from the open ground, and such plants in my experience almost invariably give less finished flowers than layers taken from plants grown in pots. Raised from mixed seed. Sent out in 1882.

JAMES MERRYWEATHER (Wood).—A seedling, as a letter by Mr. Adams, given at p. 66 states, from Falconbridge and Jenny Lind, it has a petal which is the perfection of shape, broad, smooth, of fine substance, and richest quality; markings bold, distinct through stripes, and full of variety; form fine, of good size, and an excellent grower; no collection can be complete without this variety, and it worthily commemorates the name of a most excellent, enthusiastic florist, who was esteemed in life by all who had the privilege to know him. First bloomed in 1865; sent out in 1869. Like Apollo, a seedling from James Merryweather, it frequently throws crimson bizarre flowers, but hitherto these sports have been fugitive.

JESSICA (Turner).—A full-sized, well-marked and well-formed flower; said, when first shown by Mr. Turner in 1880, to have been “thought by the judges to be too much like Sibyl.” Whatever may have been the ground for the opinion at the time, few will, I think, have shared the opinion subsequently. With me it was very distinct from the fine variety named. Sent out in 1882; apparently very sportive.

JOHN KEET (Whitehead).—Raised at Oldham from mixed seed. This is another of the varieties of a rich class which can scarcely be

too highly extolled. Large in size, fine in form, of great substance, smooth, richly marked with through stripes lovely in their variety, though all distinct; admirable in its habit, and robust in its growth, it is difficult to imagine higher attainment than is here developed. Comes early into bloom, but as from its vigour, many of the side shoots run to bloom, it may also be had amongst the latest. In ordinary cases, my practice is to “stop” the side-shoots as they start for bloom, and thus generally we get a considerable addition to the increase; but finding John Keet to be an exception to the rule, I recommend allowing the shoots to run, and thus a few fine late flowers will be secured. Grow generously, but as with every other variety of Carnation or Picotee, carefully avoid the use of crude forcing stimulants.

MADGE WILDFIRE (Dodwell).—A seedling from Curzon, interesting as illustrating the sportiveness of the tribe. A striking and effective variety for the home stage, having a broad finely formed petal, very distinctly marked, with a strongly defined rose. First bloomed in 1881; sent out in 1882.

MISS ERSKINE WEMYSS (Dodwell).—A beautiful variety in a class rich in variety. Large, smooth, of great substance and high quality. Richly marked with a lovely soft rose, very distinct. A fine grower. A seedling from two c.b.'s, Shirley Hibberd and Thomas Moore. First bloomed in 1881; sent out in 1882.

MRS. CARTER (Dodwell).—A seedling from Mrs. Home (of Lovely Ann descent), and an improvement, as I think, upon its parent; large, full, of excellent substance and fine form, richly flaked with bright rose. A good grower. First bloomed in 1881; sent out last autumn.

MRS. DODWELL.—Raised at Todmorden by my friend Mr. Robert Lord. A seedling from Uncle Tom crossed with pollen from John Keet, both parents, as I believe, of Lovely Ann descent, this variety has qualities of great excellence, such indeed as may scarcely be surpassed. Of full size, good form, with a grandly marked, broad, gently capped, smooth petal, great substance, pure white ground and rich deep colour, it is difficult to imagine greater loveliness. It is also a good grower; a very early bloomer. This habit prevents its frequent appearance on the exhibition tables of the south. First bloomed in 1873; sent out in 1877.

MRS. HOME (Dodwell).—Another variety of Uncle Tom descent. First bloomed in 1879; offered in 1880 as an improvement upon its parent, a character, I believe, it has fairly maintained. A robust grower; early in bloom.

MRS. MATTHEWS (Dodwell).—A seedling from John Keet; a rich fine flower of good form, full size, and very distinctly marked with a deep, slightly purplish rose. A good

grower. First bloomed in 1879 ; sent out in 1881.

MRS. TOMES (*Dodwell*).—A seedling from Headly's Marshal Ney, c.b. First bloomed in 1879 ; sent out in 1880. This, in the first years of its existence, was one of the loveliest rose flakes I had ever seen, from its richness and beauty of colour, a deep cherry rose profusely distributed in every petal. As it ages—for age is frequently rapidly attained in the Carnation—this beauty of colour has slightly waned, yet still Mrs. Tomes is entitled to be described as “one of the best.”

ROBIN HOOD and ROB ROY (*Gorton*).—Two glorious varieties raised at Eccles by Mr. Gorton, from the same batch of seed which produced Wm. Skirling, described in the Pink and Purple Bizarre class, and I incline to think from the same parent—Rifleman. The latter is now being distributed by Mr. C. Turner, and is described by him as a “large flower of splendid form, with very smooth finely shaped petals, beautifully flaked with bright cherry rose,” terms which certainly do not exaggerate the beauty of the flower. Robin Hood differs very distinctly from Rob Roy in its tone of colour, whilst in every respect it fully equals the splendid qualities of the latter.

SIBYL (*Holmes*).—Raised at Wakefield by the late Mr. Abraham Holmes, from self-fertilised seed of Lovely Ann, which, with an additional robustness and larger size it closely follows in its habit of flower. Its growth is more erect than that of the parent. A lovely variety, remarkable, like others of the Lovely Ann family, for its pure white ground, and the richness and distinctness of its markings. Petals broad, smooth, of good substance, and gently cupped; form fine; size large. First bloomed in 1869 ; sent out in 1873. During the past season it was remarkably fine; like most of the Rose Flakes, somewhat early in flower.

TIM BOBBIN (*Gorton*).—Another of the fine varieties raised by Mr. Gorton, and one once seen in its grandest form never to be forgotten. A seedling from John Keet, in its best state it fairly eclipses that grand old variety, and once it is grown in quantity in the bracing air of the Yorkshire hills I anticipate many recurrences of the glorious beauty which marked it when shown by Mr. Gorton at Manchester in 1881, as to which I felt constrained to say, it “was the finest Rose Flake I had ever seen.” In the softer air of the south it does not apparently so much enjoy itself, yet, having been privileged to grow it with others of Mr. Gorton's seedlings on trial, I have had some glorious flowers, and its great beauty will well repay the slight extra care needed for its full development. First bloomed in 1879 ; distributed by Mr. C. Turner during the past autumn.—E. S. DODWELL, Stanley Road, Oxford.

ASPLENIUM ADIANTUM-NIGRUM CAUDIFOLIUM.

WITH this I send you a plant of what I believe is a new form of *Asplenium Adiantum-nigrum*, which though it cannot be deemed beautiful, is worthy of notice for the singularity of its variation. I also send a drawing of a frond, which will convey a definite idea of its character. The plant sent is one of a large batch which I found last year in the Dartmoor districts, where this form, which is strictly



adhered to by all the plants, had entirely monopolised some yards in the middle of a stone dyke, actually ousting altogether the normal form which occupied in profusion both ends. On the other hand, though the special area affected by the abnormal form was crowded with plants of it in all stages I could not find a single stray one outside this space, a singular fact which points to some occult local influence, although the plants are perfectly constant under culture in very different circumstances.

A marked feature of the variation is the yellow colour of the small lobes near the caudation when the fronds are mature (A in

the accompanying figure); this is observable in all cases.

I may add that the abnormal characteristics become much more marked under cultivation, the plants assuming a most singular appearance when luxuriantly grown in a *Todea* frame, a mode of treatment, by the way, which I find, contrary to accepted ideas, to be the best for the *Aspleniums* generally as well as for *Ceterach*. A small plant of *Asplenium Trichomanes incisum* given to me some time back is now a magnificent sight, measuring across 14 or 15 inches. It is kept quite close together with *Todeas* and Killarney ferns (*T. radicans*) and is watered profusely overhead frequently.—
CHAS. T. DRUERY, 25, Windsor Road, Forest Gate, Essex.

HYDRANGEA THOMAS HOGG.

HERE are few decorative plants better known than the *Hydrangea*, more especially the old *H. Hortensia*. They are all very beautiful, very effective, and well adapted both for conservatory and indoor use. *H. Thomas Hogg* is a good white, and, therefore, doubly useful for decorative purposes. A nice stock of plants will furnish flowers from early spring to the autumn, for which purpose they should be prepared beforehand. They are easily propagated by cuttings. Plants in small pots with large heads of bloom are easily obtained, though some persons experience a difficulty in the matter. The cause of their failure arises from their putting in the cuttings too late for good crowns to be formed during the same season; consequently the crowns being poor, the heads of flowers also are poor. To do them well, the cuttings should be put in towards the end of April or beginning of May; the best of them should be put into small sixties or thumb pots at once, and the remainder or smaller cuttings should be put four or five round the inside of small forty-eight sized pots. They should then be put into a gentle heat, be kept sprinkled with water occasionally, and shaded in bright weather.

As soon as they are nicely rooted shift those in sixty and thumb pots into small forty-eights, and pot off those in small forty-eights. Remove the whole, after they are potted, back into a gentle bottom heat, keep them sprinkled occasionally, and shaded in very hot weather. Toward the end of June or beginning of July they will require a small shift; use a compost

of loam and bog earth, and when potted put them into a cold pit or frame. Towards the latter part of August they should be put into the pots they are intended to flower in, using a compost of strong loam and bog earth. When potted put them in a sheltered situation and plunge them in cocoa-nut fibre refuse or spent bark. Keep them watered carefully, and in dry weather syringe copiously. Towards the middle of October they will have fine well-developed crowns that will produce grand heads of fine bloom the following spring. About the middle of October put them into a cold pit or frame, and be careful the frost does not injure them.

Early in January a batch of plants may be put into the greenhouse, and another small batch into an early vinery; these, with the necessary attention in watering, &c., will yield fine heads of flowers in April and May. Other batches of plants put in at intervals of three or four weeks will furnish plants in succession for purposes of decoration. So that with a nice stock a succession of these showy plants may be kept up during the whole season. After they have done flowering they should have a careful shift, and be placed in a sheltered situation and carefully attended to in watering, &c.; these will furnish large specimens for another season, whilst a batch of cuttings treated as above recommended will furnish a supply of small plants.—M. SAUL, York.

THE NATIONAL AURICULA SOCIETY.

NORTHERN SECTION.

THE Annual Exhibition of the Northern Section of the National Auricula Society took place at Manchester on April 29.

The show was held in the Town Hall, and was a very satisfactory one considering the backwardness of the plants. The northern growers had the field to themselves, as the flowers of the southerns were past their best. Mr. Wilson, of Halifax, and his neighbour Mr. Pohlman, were in strong force, and showed remarkably well.

Amongst the specially notable examples of high cultivation may be mentioned Prince of Greens (Traill), which was staged in several collections in very fine condition; John Simonite (Walker), a bonnie and indispensable flower; and Acme (Read), which was particularly good. There was keen competition in most of the classes, especially in those for

single plants, so that the work of the judges was by no means light. New varieties were not very numerous. A ruby self exhibited by Wm. Brockbank, Esq., under the name of *Lord Rosebery*, was honoured by the premier award in the class for selfs; it resembles Duke of Argyll, but is larger, and rather more even, a rich ruby-red, with a good tube and paste, and promises well. There was also a very fine new green-edged variety, exhibited by Mr. R. Lord, with very smooth flat flowers, not less than $1\frac{1}{2}$ inch across, with a good body colour and edge.

Polyanthuses, as they usually are in the North, were well shown, both as regards plants and varieties, W. Brockbank, Esq., and Mr. John Beswick being the principal prize winners. A fine batch of Cheshire Favourite was shown by Mr. Thomas Walkden, nurseryman, Sale, but they were not for competition.

SHOW AURICULAS.

Class A. 6 dissimilar, including one of each class.—Seven competitors. 1st prize to Mr. H. Wilson, Halifax, for Prince of Greens (Traill), with nine large and very even pips; Colonel Taylor (Leigh), nine pips; Aeme (Read), six pips; Lancashire Hero (Laneashire), John Simonite (Walker), with five excellent pips; and Mrs. Douglas (Simonite), with six very fine pips: all the plants very healthy and strong, the best being Prince of Greens and Mrs. Douglas, the latter being the best in the exhibition. 2nd, Mr. E. Pohlman, Halifax, with Prince of Greens, eight pips; Beauty (Traill), with nine enormous pips; Aeme (Read); Brilliant, a fine high-coloured seedling self; Colonel Taylor (Leigh), and Alexander Meiklejohn (Kay), the latter carrying seven very large pips; these ran the first prize lot very closely. 3rd, W. Brockbank, Esq., Brockhurst, Didsbury, with Charles J. Perry (Turner), Alex. Meiklejohn, George Lightbody (Headly), Lancashire Hero, John Simonite, and Othello, Lancashire Hero being good. 4th, Mr. Ben Simonite, Sheffield, with Acme, Merlin (Simonite), Pizarro (Campbell), Heather Bell (Simonite), Seedling, and F. D. Horner (Simonite); the last was very fine. 5th, Mr. Wm. Bolton, Warrington, whose best plant was Frank Simonite (Simonite). 6th, Mr. E. Shaw, Moston, near Manchester. 7th, Miss Stewart, York.

Class B. 4 dissimilar, to consist of one of each class.—Nine exhibitors. 1st, Mr. H. Wilson, with Garibaldi (Pohlman), seven even pips; Colonel Taylor, eight pips; Acme, with six good even pips, and George Lightbody: this was a grand lot, the Acme being especially well grown and finished. 2nd, Mr. E. Pohlman, with excellent plants of Acme, seven pips; George Lightbody, Helen Lancaster (Lancaster), with ten very excellent pips; and Colonel Taylor. 3rd, Mr. Wm. Taylor, Middleton, near Manchester, with George Lightbody, Beauty, Othello, and Colonel Taylor. 4th, Wm. Brockbank, Esq. 5th, Mr. Wm. Bolton. 6th, Arthur Potts, Esq., Hoole Hall, Chester, in whose collection was a good plant of Dr. Horner (Simonite). 7th, Mr. E. Shaw.

Class C. 2 dissimilar.—Sixteen exhibits. 1st, Mr. E. Pohlman, with Acme, seven very large pips; and George Lightbody, with six very smooth well-

balanced pips. 2nd, Mr. Jno. Beswick, Middleton, with charming plants of George Lightbody, and Charles J. Perry, with ten large even pips. 3rd, Mr. William Taylor, with George Lightbody, and a Seedling. 4th, S. Barlow, Esq., Stakehill, Manchester. 5th, Mr. R. Lord, Todmorden. 6th, Mr. E. Shaw.

Class D. 2 dissimilar (maiden growers).—Two competitors. 1st, Arthur Potts, Esq., with a good plant of Freedom (Booth), carrying six fine pips, and Lancashire Hero. 2nd, Mr. J. Brodie, Rochdale, with Maria (Chapman), and Lord of Lorne (Campbell).

Classes F, G, H, and I, single specimens:—

Green-edged: Thirty exhibits. Premium, Lancashire Hero, with nine very large pips, the exhibitor's name not given. 1st prize, Mr. R. Lord, with a Seedling. 2nd, Mr. E. Pohlman, with Prince of Greens, and 7th with Colonel Taylor, the former carrying ten good pips. 3rd, Mr. John Beswick, with Lovely Ann (Smith), grand pips. 4th, Mr. Ben Simonite, with Dr. Horner, and 5th with S. Barlow (Simonite), the latter a very fine variety. 6th, W. Brockbank, Esq.

Grey-edged: Forty-two exhibits. Premium, Mr. H. Wilson, with George Lightbody, a grand specimen, having seven very even pips. 1st (no name) with A. Meiklejohn, seven pips. 2nd, Mr. E. Pohlman, with a magnificent plant of Lancashire Hero. 3rd, W. Brockbank, Esq., with Richard Headly (Lightbody). 4th, Mr. Ben Simonite, with Susan Horner. 5th, Mr. John Simonite. 6th and 8th, S. Barlow, Esq. 7th, Mr. G. Heys, Rochdale.

White-edged: Thirty-two exhibits. Premium, Mr. H. Wilson, with Acme (Read), carrying nine large pips, quite head and shoulders above the rest. 1st, Mr. R. Lord, with Acme. 2nd, Mr. H. Wilson, with John Simonite; the 5th and 7th prizes were also taken by this exhibitor. 3rd, Mr. B. Simonite, with a good plant of Beauty (Traill), carrying eight large pips; 4th and 6th also Mr. B. Simonite. 8th, Mr. Lord.

Selfs: Over fifty exhibits. Premium, W. Brockbank, Esq., with Lord Rosebery, a Seedling referred to above. 1st, Mr. J. Beswick, with Lord of Lorne. 2nd, Mr. E. Pohlman, with Brunette (Pohlman), carrying fine good pips. 3rd, S. Barlow, Esq., with Ringleader, and 6th with a Seedling. 4th, Mr. W. Bolton. 5th, Arthur Potts, Esq., with Helen Lancaster.

Class R. 12 dissimilar Fancy.—1st, S. Barlow, Esq.; 2nd, Mr. W. Bolton, both collections being very attractive, yellow shades with good trusses predominating.

ALPINE AURICULAS.

Class E. 4 dissimilar, shaded.—Ten exhibitors, the groups mostly good. 1st, S. Barlow, Esq., with strong, well grown plants of President (Turner), Mrs. Llewelyn (Turner), with a very fine truss, Unique (Turner), and Mrs. Dodwell (Turner). 2nd, Mr. J. Beswick, whose best plants were Diadem (Gorton), with fifteen excellent pips, and Dazzle (Turner). 3rd, Mr. E. Shaw, Diadem being again very good. 4th, Mr. Heys. 5th, W. Brockbank, Esq. 6th, Mr. Prescott.

Classes K. and L. Single specimens, shaded:—

Yellow centres: Twenty-nine exhibits. Premium, Mr. E. Shaw, with a grand plant of Diadem. 1st prize, Mr. R. Heys, with a seedling from Diadem. 2nd, Wm. Brockbank, Esq., with Mariner; the same exhibitor taking the 3d prize. 4th, Mr. G. Legge. 5th, Mr. E. Pohlman.

White centres: Twenty exhibits. Premium, Mr. E. Pohlman, with a Seedling of very fine character; the same exhibitor taking the 1st prize, also with a Seedling. 2nd, Mr. R. Heys. 3rd, Mr. Partington, Middleton.

POLYANTHUSES.

Class M. 3 dissimilar, Black grounds.—1st, Wm. Brockbank, Esq., with Chesbire Favourite, Exile, with ten very fine pips; and Beauty of England, with six pips. 2nd, Mr. Jno. Beswick, with Lord Beaconsfield, Exile, and Blackbird. 3rd, S. Barlow, Esq.

Class N. 3 dissimilar, Red grounds.—1st, Mr. Jno. Beswick, with Sydney Smith, Lancer, and George IV., the latter especially good. 2nd, Wm. Brockbank, Esq., with President, Prince Regent, and Lord Derby. 3rd, Mr. R. Heys, with Prince Regent, Formosa, and George IV. 4th, S. Barlow, Esq.

Class O. Single specimens, Red grounds.—There was keen competition in this class. Premium, Mr. R. Heys, with a grand plant of George IV., with seven very fine pips. 1st, Mr. Beswick, with Lancer. 2nd, S. Barlow, Esq., with a Seedling. 3rd (no name), with George IV. 4th, William Brockbank, Esq., with Prince Regent, and 6th with Lord Derby.

Class S. 12 dissimilar, Fancy.—Wm. Brockbank, Esq., was the only exhibitor, with a very fine collection. The same exhibitor took the 1st prize for twelve dissimilar Primroses, his being the only collection staged.

Miscellaneous Exhibits.—Messrs. Dickson & Sons, Newton Nurseries, Chester, staged a stand of 24 show Auriculas, which included fine plants of Lord of Lorne, C. J. Perry, Frank Simonite, John Simonite, Metropolitan (Spalding) Duke of Argyll, Acme, Beauty, Mrs. Sturrock, Charles E. Brown (Headly), Robert Traill, R. Headly, Lovely Ann, Ivanhoe, Glory (Taylor), &c.; also a stand of eighteen alpine varieties, the most conspicuous of which were James Fowle, Diadem, Mrs. Meiklejohn, Mrs. Llewelyn, Mrs. Thomson, Bronze Queen, and Fairy Ring, the whole being backed up with two boxes of Japanese Maples which were remarkably beautiful. Mr. G. Geggie, Waterloo Nursery, Bury, staged a charming series of varieties of *Primula Sieboldii*, varying greatly in colour, as well as being large and extremely showy; this is a very valuable race of plants for garden decoration.

At the NEWCASTLE-ON-TYNE Annual Spring Show, on April 23 and 24, Auriculas were shown in considerable numbers and in nice condition, some with the flowers severely thinned in the way admitted by florists, others with larger and consequently more effective trusses. For twelve (alpines excluded) Mr. Adams, Swalwell, was 1st; Mr. T. E. Hay, Killingworth, who also staged a good dozen, 2nd; and Mr. Jarrett, 3rd. For six (alpines excluded) Mr. Hay was 1st, and Mr. Adams 2nd. Twelve alpines: 1st, Mr. W. J. Watson; 2nd, Mr. Adams; 3rd, Mr. T. E. Hay.

The show of the ROCHDALE AURICULA SOCIETY was held on May 3, in the Public Hall of that town. The display was considered a good one, the classes being all well filled. The principal prize-takers were Messrs. Wilson of Halifax, Pohlman of Halifax, Barlow of

Stakehill, Beswick of Middleton, and Bolton of Warrington. The leading prizes in the Single Specimen Classes were awarded as follows:—Green-edges: 1st, Mr. Wilson with Col. Taylor; 2nd, Mr. Potts with Prince of Greens. Grey edges: Premium, Mr. Wilson with Lancashire Hero. White-edges: Premium, Mr. Lord with Acme; 1st, Mr. G. H. Wheeler, Rochdale, with Beauty (Traill); 2nd, Mr. Lord with Catherina. Selfs: Premium, Mr. Pohlman with Helen Lancaster; 1st, S. Barlow, Esq., with a Seedling. Polyanthus: 1st, Mr. Beswick with Lancer and Exile.

COMPARETTIA CULTURE.

mongst the *Comparettias* there are some lovely species, which, as they require but little space to grow them in, especially commend themselves to those with limited accommodation.

The plants will thrive either in a basket or pan suspended from the roof, where they can receive a great amount of light; and to grow them successfully this plan should be followed. They are all small growing species, and are found on the branches of trees where they obtain just sufficient shade to screen them from the burning sun, and where they also get the heavy night dews, and sometimes a great amount of rain. It is during this rainy period that they make their growth and produce their flower spikes. As the foliage and bulbs are small they require careful attention, as regards the supply of moisture at the roots.

The most suitable material in which to grow them is a little fibrous peat and sphagnum moss, with good drainage, so that the water may pass away without becoming stagnant. Some portion of this material should be changed annually, just as the plant begins to show signs of making new growth.

The *Comparettias* will not readily submit to be divided or cut; and the Cattleya house is the most suitable structure in which to grow them. They are subject to the attacks of white scale, which is a great enemy to them as well as to similar small-growing Orchids; indeed, if they are allowed to accumulate, the plants will soon show signs of bad health, but if sufficient care is bestowed on them to keep them clean they will well repay the trouble which is taken with them, and afford

great pleasure to those who take an interest in watching these little floral treasures as they put out their new growths and bring forth their beautiful blossoms.—*B. S. Williams, Holloway.*

THE ORANGERY AS A WINTER FRUIT GARDEN.

THREE is no fruit-tree that approaches the Orange ; the beauty and profusion of its flowers, the sunny golden fruit, set off and relieved by the splendid glossy ever-green foliage, combine to place the Orange in the premier rank—a peer amongst its peers. With these qualities it is not a little singular that the dismal old orangery crowded with straggling bitter fruit should have been considered sufficient for its cultivation, and that in rich England it has not been established as a winter fruit-tree, as indispensable to a well kept garden as the pinery or viney. My house has about fifty trees in it studded with golden fruit, and has been a special pleasure since the beginning of November, the season when the fruit assumed the rich, sunny, golden hue peculiar to healthy Oranges. The temperature has ranged from 50° to 60°, not much above the outside air, the ventilators being open from nine in the morning till four in the afternoon, causing no discomfort from heat in the house, and no fear of catching cold on quitting.

There is no prettier dish for the dessert than the Orange gathered with a stalk of leaves ; the fruit is fresh, fragrant, deliciously juicy, filling a room with its perfume. A well-arranged Orange house, large and lofty, would probably pay its expenses and leave some profit, no expensive forcing being required. It would be unequalled as a winter promenade, and I recommend the idea to those who wish to promote the attractions of our winter seaside resorts.—*T. F. RIVERS, Sawbridgeworth (Journal of Horticulture).*

THE ALSTREMERIAS.

ACCOMPANYING a handsome plate containing coloured figures of several varieties of *Alstroemeria*, issued in the *Revue Horticole*, we find the following remarks relating to these interesting plants :—

The charming Amaryllids which form the genus *Alstroemeria* were originally from South

America, from the tropic to the south of Chili. They are closely allied to *Bomarea*, and are chiefly distinguished therefrom, in a horticultural point of view, by their stems being erect and not climbing. Moreover, the Alstroemerias present to the garden amateur the advantage of including several hardy kinds, which thrive in the open air, and there produce, in the fine season, a profusion of pretty flowers, whose seedlings afford much variety in the shades of their colour, and are precious for cutting.

The number of species of Alstroemerias published exceeds fifty. Kunth alone describes thirty-nine of them, but the total ought to be reduced, as botanists have confounded simple varieties with specific types on several occasions.

Among the specimens which have produced the numerous varieties successively obtained in cultivation, one especially distinguishes *A. versicolor* and *A. aurantiaca*, perhaps also some others badly defined, and which one will have introduced without being very sure of their identification. Their character is to be nearly hardy, even in the climate of Paris, if their fleshy roots be sufficiently sunk in the soil, and planted in well-drained land. Under these conditions they dread nothing from our colds, especially if one takes the precaution to cover the border where they are planted with leaves during the winter.

Seedlings give numerous varieties, varying from scarlet red to violet, from yellow to white, and passing through all the intermediate shades of ground colour, on which the most lively and varied striæ of two of the internal segments of the perianth are gracefully displayed.

The varieties pourtrayed were cultivated in a collection at Rocquencourt Park, by Mme. Ch. Heine, the distinguished amateur. The plants were set out in several borders a few years since, and without having been ever taken up, have formed tufts of extreme vigour, which do not cease to bloom during all the fine season.

The culture of Alstroemerias does not present any serious difficulty ; but there are certain principles which must not be forgotten under penalty of failure. From the first, pot-culture must be renounced ; this rather suits the beautiful creepers of the neighbouring genus, *Bomarea*, now becoming the fashion. The fasciculated fleshy roots of the Alstroemerias would be an obstacle to this mode of culture, and moreover the open ground suffices to have them in all beauty. The following is the best mode of preparing the soil : break up to a depth of 20 inches a good garden soil, at the bottom of which place a drainage of stones or rubble and of sand, at least 4 inches thick. There will then remain 16 inches thick of good soil which must not be chalky,

and with which some well-decayed manure should be mixed. In October the fasciculated roots are to be planted at 12 to 16 inches apart. The top of each fascicle ought to be 10 inches from the surface of the soil. These should be covered with the same compost, and sheltered during the winter, as already mentioned, with a layer of leaves, which are taken away when cold is no more to be feared. Humidity being the sole thing to dread, I cannot too strongly insist on perfect drainage in order to obtain a good result. Thus treated, the plants will push on freely, will throw up their numerous stems which attain from 20 to 40 inches in height in the course of the spring, and will be covered with flowers from June onwards.

Alstroemerias are increased by dividing the tufts, but only in the early spring, in March; it is well to keep the young multiplications in pots and under frames to prevent them from perishing. The Alstroemerias are so close to the Bomareas that certain authors have confounded the two genera. This similitude might perhaps be utilised by fertilising the two genera one with the other, in order that our ornamental flora of the open air might thus gain some interesting novelties.—ED. ANDRÉ (*Rev. Hort.*, 1884, 228).

DAISIES ON THE LAWN.

DTHE presence of Daisies and Plantains on grass turf is a sure indication of poverty of the soil, and those who have to deal with weedy lawns should make due note of the fact, for not until it is properly understood and acted upon will it be possible to achieve much success in their improvement. Poor soils will not produce a satisfactory growth of grass and clover, and as these die out, in consequence of the soil being exhausted of its alkalies and phosphates, the Daisies and Plantains take their place, to be followed in due course by weeds of a still more objectionable character.

As the Daisies form a green surface, the owner of a lawn of which the soil is in a very exhausted state has not so much to complain of as is generally supposed, and would indeed appear from a superficial consideration of the matter. Nevertheless the presence of Daisies is not to be desired for two sufficient reasons. In the first place, a weedy lawn indicates to some extent indifferent management, and in the second a surface of Daisies is much less satisfactory both to the eye and the foot than

grass. Every effort should indeed be made to keep the Daisies and Plantains under, if not to entirely annihilate them, and the steps taken should be rather in the direction of promoting a vigorous growth of grasses and clovers than in killing the Daisies. Why this course should be taken will be sufficiently explained by a brief statement that when the grasses and clovers grow with a proper degree of vigour the weeds will not be able to make much headway; certainly not sufficient to present a very objectionable appearance. It is still too much the practice to ignore the necessity for applying regular dressings of fertilisers to the lawn. As the result, it is a quite common occurrence to see lawns that are either in a very weedy state, or so impoverished that they become brown after a short period of dry and hot weather. To have grass in perfection it must be cultivated, which briefly stated consists in maintaining the fertility of the soil by dressing with manure according to the necessities of each case, and assisting the grass during periods of droughts with copious waterings.

We have proved on more than one occasion that Daisies may be eradicated and the texture of the turf improved by a very simple course of procedure. This consists in sprinkling guano over the daisied turf at the rate of three and a half pounds to the square rod in dry weather. The lawn will have a decidedly brown and, in fact, objectionable appearance for some time after the guano is applied, and the gardener will do well to explain the matter to his employer before he resorts to remedial measures. But in due course a luxuriant growth of grasses and clovers will take the place of the daisies and plantains, and form a turf of splendid texture and emerald brightness. That such things as daisies and plantains should be killed outright by sowing strong manures over them is due to the breadth of their leaves, which receive and hold the manure as a poison, and by the time they are dead to the very roots, the manure is carried down into the substratum by the rains, and the grasses and clovers, feeling the stimulus, flourish anew, and quickly take the place of the daisies and plantains. Applied in dull showery weather the guano will promote a more vigorous growth of the



1800-1810

Chromolith Severeyns Bru. etc.

Apple Yellow Bellefleur.

grass without turning it brown, but the daisies will not be killed. In destroying plantains alone it will suffice to put enough guano over each one to cover it ; but if the work is done as it should be in dry weather brown patches will be produced, and these will be quite as objectionable to the eye as when the grass is wholly brown. The length of time that elapses before the new growth commences after the guano has been applied depends entirely upon the weather or the assistance the grass receives from the watering pot or the hose. Should a heavy shower of rain fall so soon after the guano is applied that it is washed down to the roots before it has had time to brown either the grass or the daisy leaves a second dressing will be beneficial ; but there must be no hurry, and it will be well to wait two or three weeks. In the improvement of lawns that are thin without being weedy, it is excellent practice to apply during the early part of the year three dressings of either guano, superphosphate of lime, or nitrate of soda, at the rate of three pounds to the square rod ; the first dressing to be applied about the middle of February and the other two at intervals of three or four weeks. A mixture of well-rotted stable manure and fine soil spread over the surface to a depth of about one inch some time during the winter will afford much assistance to the grass, but its appearance is not pleasing and prevents its being so generally adopted as it might be with advantage to the lawn.

The manner in which the grass is mown is a matter of prime importance, and with reference to this point it must be said that in many instances there is plenty of room for improvement. In some cases the turf is cut too close, and the roots thereby too much exposed to the heat of the sun for the preservation of a fresh and bright appearance during droughty weather. On the other hand, allowing the grass to attain a considerable height and then cutting close is still more injurious. The best process for keeping the turf in good condition is to set the machine rather higher than is the custom and to use it more frequently. Especially is this practice desirable in dry hot weather.

Another point of management which receives but little attention is watering. Throughout the summer water is used freely for all sorts of purposes except for refreshing the grass.

In the dry heat of July an irrigated lawn well kept in other respects becomes one of the most enjoyable features of a garden, but it is one rarely experienced, for the simple reason that the cultivation of turf is not carried out with the same degree of skill as is brought to bear upon other departments. Irrigation is not useful merely in maintaining the lawn in its proper colour during the summer in which it is carried out. It has a more permanent effect, for by preventing that exhaustion of the grass which follows on a period of heat and drought it affords material assistance to the grass in contending with daisies, which are not slow to spread on all sides as soon as the grass becomes thin and weakly.—(*Gardeners' Magazine*.)

APPLE MRS. BARRON.

[PLATE 612.]

 MONGST large and handsome culinary Apples of high quality, the variety here figured, which now bears the name of Mrs. Barron, but has been hitherto called the Yellow Bellefleur, is destined to assume a prominent position. For some years it has been cultivated in the Royal Horticultural Gardens, Chiswick, under the last-mentioned name, Yellow Bellefleur ; it proves, however, to be quite distinct from and much superior to any variety under that name, that we have ever met with. It proved also to be quite distinct from any variety exhibited at the Great National Apple Congress, held at Chiswick last year. That being so, and several years' experience having proved its high qualities, the name of Mrs. Barron, which it will henceforth bear, has been suggested for it and adopted.

The fruit may be described as of the largest size, of oblong shape, and slightly angular especially near to the eye. Skin of an almost uniform pale yellow, changing to warm orange as the fruit ripens. Eye large, open, set in a shallow puckered basin. Stalk short, stout. Flesh pale straw-colour, very tender, and remarkably sweet for so large a fruit. Excellent for tarts. In season from October and onwards, keeping well into February. Tree of remarkably stout vigorous growth—the young shoots thick and strong. A very free bearer. An excellent variety for good orchard culture, where plenty of space for growth would be obtained.—B.

DESCRIPTIVE LIST OF NARCISSI.

THE following descriptive list we owe to the diligence and persevering efforts of Mr. Barr, the catalogue itself being preceded by some introductory remarks by Mr. Burbidge:—

A descriptive catalogue, or list of all known Daffodils grown in our gardens to-day, cannot but be a great boon to all who are interested in hardy bulb culture. That such a list is to be given in these pages is as I take it a good and pleasant augury, and all cultivators of Narcissi will hail it as a great gain. Whether the new popular names bestowed upon our favourite flower be generally accepted or not, a good descriptive list, with raisers' names of all the new seedlings and garden forms, will aid much towards that end. But let us hope that the thin end of a powerful wedge has at last been firmly driven in, and that these new names be accepted as they ought to be. Our "Narcissus Conference" will then become a sort of magna charta, and both Lords and Commons will thereby gain their just rights—in a word, the wild species and sub-species will be named in Latin, but all known forms of garden origin, whether hybrids, seedlings, or bud sports, will have suitable English or popular names (not Latin) bestowed upon them. No one but the gardener and the botanist can appreciate the loss of time and trouble unauthenticated garden names have caused in their time. As Mr. Baker has told us, the botanist looks on these waifs and strays in botanical nomenclature just as a "cat looks at a mouse, or as a shopkeeper looks upon a bad half-crown," and he is perfectly right in his wittily expressed opinion. The haphazard application of Latin or Latinised names has led up to a crisis. We now find this array of names a great trouble to us, a host of "stringless heads," ah! a "snake in the grass," which will be avoided whenever possible by all concerned. But the question now before us is this, Why should we leave the monster there to annoy the early footsteps of all botanists and gardeners to come? Why not scotch "this monster of such hideous mein that to be hated is but to be seen." We may not be able, perhaps, to repair all past wrong in this way, but at least let us "sin no more." This is one reason why the following list of Narcissi

is necessary. We not only propose new popular names, but we wish to give such descriptions as may enable those interested to satisfy themselves as to the varieties to which those new names are applied.

So much for the Narcissus; but, as we have before said, the principle of this re-naming is not confined to the Daffodils alone. All questions of botanical or horticultural nomenclature must be general and applicable all round. Seedling Orchids and hybrids of all other genera must for the future be known under popular names only! This much effected will be an enormous gain; and if it can be effected as an outcome of the "Daffodil Conference," that meeting will stand out far as a landmark, a Runnymede, indeed, for all future time. And that this much can be effected goes without the saying, and we look to the Royal Horticultural Society's Committees, and especially to the Gardening Press, to enforce this principle in the future. Thanks to the Editor, the *Gardener's Chronicle* has for years done us good and true service in this direction, by affixing a × as a distinguishing badge to the names of all known hybrids referred to in its pages, and it is a matter of regret that such a good practice has not been general. Our policy, however, is to welcome all good aid without repining, and to do all we can in the present to remedy the errors of the past, and make easier the labours of the garden-botanist of the future.—F. W. BURBIDGE.

In this List of Daffodils we propose to give short descriptions of modern garden varieties, with the raiser's name. When no name is given it may be assumed the variety was originally introduced into gardens or is a natural hybrid. The diligent researches now being prosecuted on the Pyrenees will probably reveal the origin of such hybrids as Sabinii, Macleayi, Montanus, &c. The list embraces names of some Daffodils in Haworth's Monograph which are not at present supposed to be in cultivation, but it may reasonably be expected that their reintroduction is not far distant, and by inserting them in this list we may possibly prevent the manufacture of new names, as it is well before giving a name to a modern introduction to see if Haworth or Parkinson have not previously known them; and the more readily to distinguish such they

have a * affixed. The raisers names are thus distinguished:—B. Backhouse, de G. de Graaf, H. Horsfield, L. Leeds, N. Nelson, P. Pickstone, &c.

MAGNICORONATI.

I. CORBULARIA, OR HOOP PETTICOAT.

*ALBICANS (the larger white).

*AUREUS (the shorter crowned).

BULBOCODIUM (the small entire crowned), small rich yellow flower; the variety is in commerce as *C. tenuifolius*.

*CANTABRICUS (the lesser white).

CONSPICUUS, large golden yellow flowers, exceedingly floriferous; the species most generally cultivated; figured in Sweet's *British Flower Garden*, 2 ser., t. 326.

CITRINUS, large pure sulphur yellow flowers.

*GIGAS (the giant).

GRAELOSI, small neat creamy white flowers.

*LOBULATUS (the lesser yellow).

MONOPHYLLUS (*Clusii* and *albus*), pure silver white, flowers in winter.

NIVALIS, small rich deep yellow flowers.

*OBESA (the inflated).

SEROTINUS (the large late), large rich yellow flowers resembling conspicus, but with very few long recumbent leaves; figured in Sweet's *British Flower Garden*, 2 ser., t. 164.

*TENUIFOLIUS (the slender leaved), figured in Sweet's *British Flower Garden*, t. 114.

II. AJAX, OR TRUMPET.

PSEUDO-NARCISSUS—

ALBUS, perianth white, trumpet yellow.

LUTEUS, perianth yellow, trumpet deep yellow.

NELSON'S, periantha sulphur, trumpet yellow, very early. L.

PALLIDUS, perianth sulphur, trumpet yellow.

PSEUDO-NARCISSUS (the garland or lent-lily), syn. festalis; the English type is variable, but the most common has a whitish perianth and rich yellow trumpet.

SCOTICUS, perianth whitish, trumpet light yellow and elegantly serrated, not variable so far as our experience extends.

SERRATUS, perianth whitish and broad, trumpet deep yellow.

VARIIFORMIS; our experience of this reintroduced species is limited to the present spring; it however appears variable, the perianth ranging from white to yellow, and the trumpet from sulphur to deep yellow. Reintroduced by Barr & Son.

SUB-GROUP ABSCISSUS—

ABSCISSUS (muticus), variable, perianth sulphur, trumpet rich yellow. Mr. Baker may see his way to place this with loricarius, of which family it is evidently a member.

*ALBUS (the white).

*HEXANGULARIS (the six-angled clift trunk Daffodil), found in Parkinson t. 101, fig. 5.

*MINOR (the lesser clift trunk Daffodil).

*PUMILUS (the small clift trunk Daffodil).

SUB-GROUP—

CAMBRICUS, perianth sulphur white, trumpet yellow.

F. D. C. GODMAN, perianth pale sulphur, trumpet rich yellow, very distinct. B.

LOBULARIS, perianth pale sulphur, trumpet yellow, remarkably neat flower and dwarf grower.

LOBULARIS AMPLOCORONA, perianth pale sulphur, trumpet yellow.

NELL BARRY, perianth sulphur, and dog-eared, trumpet yellow, very distinct. B.

*NOBILIS, figured by Redouté, perianth sulphur, trumpet yellow, and much gashed.

PRINCEPS, perianth sulphur-white, trumpet yellow, very large flower.

STANFIELD, large spreading sulphur perianth, yellow trumpet, very distinct. B.

WOLLEY DOD, short deep yellow trumpet, large spreading primrose perianth, longer than the trumpet, very distinct. B.

TELAMONIUS, variable; is Princeps a variety of this? ; the finest form is the single counterpart of the best type of Telamonius plenus, with large spreading light yellow perianth, the divisions distinctly channelled, and on first opening barred with greenish yellow, large handsome yellow trumpet.

MAJOR—

BEACONSFIELD, perianth and trumpet full primrose yellow. B.

BACKHOUSE'S QUEEN, perianth lemon, trumpet deep yellow. B.

CAPT. NELSON, very large flower, almost a self, yellow perianth, a trifle lighter than the trumpet, which is long and spreading, growth somewhat dwarf. L.

CORPORAL TRIM, almost self, deep yellow, long, much gashed trumpet. L.

CLEOPATRA, perianth deep primrose, trumpet yellow, very distinct. L.

CHINESE GORDON, perianth and trumpet a fine uniform yellow. L.

ELIZA TURCK, perianth and trumpet deep canary yellow, very distinct. B.

EVENING STAR, perianth yellow and stellated, trumpet deeper yellow. L.

G. H. ENGELHEART, perianth yellow, trumpet deeper yellow, long, and somewhat spreading. L.

GREEN BACK, trumpet yellow, outside of perianth more or less green. L.

GERTRUDE JEKYLL, perianth and trumpet almost uniform sulphur, very distinct. N.

GLADSTONE, perianth and trumpet light yellow. L.

GOLDEN PRINCE, uniform full bright yellow perianth and trumpet, flower very elegant, not unlike a small Maximus. B.

HER MAJESTY, clear light yellow self, perianth slightly twisted, trumpet largely expanded. L.

HUDIBRAS, a remarkably distinct variety, perianth yellow, broad, imbricated, and longer than trumpet, which is a deep yellow. L.

HAVELOCK, perianth light yellow, open and spreading, trumpet deeper yellow. L.

JOHN NELSON, very distinct from its rounded drooping flower, which is large and of an almost uniform yellow, somewhat dwarf habit of growth. L.

J. G. BAKER (volutus), perianth and trumpet rich primrose, a very distinct variety. L.

JOHN VINCENT, very distinct, almost self, canary yellow, long narrow trumpet, and long twisted perianth. B.

JOHN BRIGHT, uniform light clear yellow perianth, twisted, and trumpet elegantly flanged, very distinct. L.

JOSEPH CHAMBERLAIN, self, yellow perianth and trumpet, very distinct. B.

KHEDIVE, trumpet and perianth almost uniform light yellow. L.

LITTLE PRINCESS, perianth and trumpet uniform sulphur, in this respect resembling Gertrude Jekyll. L.

LADY DONERAILE, perianth and trumpet fine pale yellow. L.

LORD MAYOR, perianth and trumpet large and uniform soft light yellow. L.

MRS. H. J. ELWES, very distinct soft clear yellow perianth and trumpet, large and spreading. L.

MRS. GLADSTONE, perianth and trumpet pale

- yellow, in the way of Mr. Gladstone, but shorter trumpet. L.
- MRS. SHIRLEY HIBBERD, perianth yellow, trumpet deeper yellow and much flanged, very distinct. B.
- MRS. NELSON, very large flower, fine light yellow perianth and trumpet, somewhat dwarf grower. L.
- MAJOR, rich almost uniform deep yellow perianth and trumpet.
- MAJOR LUTEUS, perianth yellow, trumpet large, deep yellow, and much gashed. L.
- MAJOR SUPERBUS, this is one of the most distinct of Mr. Leeds' Yellow Daffodils. Perianth broad and firmly set, trumpet large and gracefully flanged. L. (See figure in *Gardeners' Magazine of Botany*, iii. 169.)
- MAXIMUS, perianth rich yellow, and remarkable for an elegant twist, trumpet very large, gracefully flanged, and deep yellow.
- M. J. BERKELEY.—The largest of all yellow trumpet Daffodils, nearly one-third larger than Maximus, which it much resembles, uniform rich deep yellow. B.
- MARIE LOUISE, perianth canary yellow, trumpet much expanded, in the style of Maximus. B.
- MORNING STAR (*stellatus*), perianth pale yellow and stellated, trumpet deep yellow. L.
- OBVALLARIS (Tenby Daffodil), this remarkable variety is distinct from all others; the flower is not large but with all the fine qualities that delight the eye of the connoisseur florist, perianth lighter yellow than the trumpet.
- PROPINQUUS, this differs but little from major; both have a large gashed trumpet, and are almost uniform deep yellow; the foliage in propinquus is of a bluer green.
- PRINCE GEORGE, perianth and trumpet yellow, dwarf sturdy habit, very distinct. L.
- PRESIDENT ARTHUR, uniform yellow, trumpet large, perianth broad imbricated hooded, and laying forward on trumpet as in spurius, large flower. L.
- PRESIDENT LINCOLN, almost uniform yellow, large flower, perianth twisted or sometimes channelled. L.
- SPURIUS, very distinct, almost self, yellow, with broad imbricated hooded perianth, laying forward upon a large wide-mouthed trumpet.
- SPURIUS CORONATUS, remarkable for its large broad yellow expanded trumpet, and spreading divisions of the perianth which are of lighter yellow.
- SIR CHAS. DILKE, a very distinct variety of soft self primrose colour, the perianth somewhat dog-eared. B.
- SIR W. HARROD, a very remarkable variety, a large development of incomparabilis Edward Hart, but a pure Ajax, almost uniform yellow. B.
- ST. BRIGID, perianth and trumpet soft self yellow. B.
- SHIRLEY HIBBERD, a very distinct variety, large deep yellow expanded trumpet, the lighter yellow divisions of the perianth slightly twisted. B.
- SHARMAN CRAWFORD, perianth sulphur striped yellow, trumpet yellow. L.
- SERAPH, perianth sulphur-yellow, trumpet straight serrated and full yellow, early. L.
- THOMAS MOORE (*Mooreanus*), light yellow perianth, trumpet long narrow regularly lobed, very distinct, and rich full yellow. L.
- THOMAS SPANSWICK, rich clear yellow trumpet and perianth. L.
- TOWNSHEND BOSCAWEN, large conspicuous flower, trumpet and perianth yellow. B.
- TOTTENHAM YELLOW, perianth yellow, trumpet deeper yellow.
- MINOR—
* CYCLAMINEUS (small reflexing-flowered).
- MINIMUS (*pumilus*, Herbert), the smallest Daffodil known, perianth a little lighter than the trumpet.
- MINOR, a very distinct variety; the divisions of perianth take after Maximus in the graceful twist, trumpet distinctly lobed and a little deeper yellow than the perianth.
- NANUS, differs considerably from any variety in this group, the trumpet is plaited and the divisions of the perianth comparatively broad; as an edging it surpasses all others, height 3 to 6 inches.
- PUMILUS, in all points of character and colour the counterpart of minor, but a stronger grower.
- BICOLOR—
ALFRED PARSONS, perianth white, trumpet yellow, very distinct, and dwarf grower. L.
- BICOLOR (of Haworth, N. *tubæflorus*, Salisbury), perianth white, trumpet yellow.
- BREVIFLOS (bicolor of *Botanical Magazine*), perianth sulphury white, trumpet yellow.
- CHARLES DICKENS, perianth very white, broad imbricated, trumpet short and pale yellow, very distinct. L.
- DAVID WALKER, perianth sulphury white, well imbricated and finely formed, trumpet yellow. L.
- DEAN HERBERT (*primulinus*), perianth full primrose changing to sulphur, trumpet rich yellow, very large and distinct. L.
- DUKE OF EDINBURGH, perianth white, trumpet canary, very distinct. B.
- DUCHESS OF EDINBURGH, perianth sulphur, trumpet canary, medium size, and very distinct flower. B.
- EMPEROR, perianth white of great substance, trumpet rich yellow, a very large flower. B.
- GEORGE H. BARR, perianth white, trumpet yellow, medium-sized flower, dwarf grower. L.
- GRANDIS (bicolor maximus), perianth pure white, finely imbricated, and very large full yellow trumpet, perhaps the finest of the bicolors. L.
- HORSFIELDII, perianth white, trumpet rich yellow, very large flower. H.
- HARRISON WEIR, perianth white and channelled, trumpet yellow, large and very imposing. B.
- JAMES WALKER (*albidus*), perianth sulphur white, elegantly imbricated, trumpet large and very fine. L.
- J. B. M. CAMM, perianth white and very elegant, trumpet primrose, gracefully formed and very distinct. B.
- JEANNETTE, perianth white, small, neat and compact, trumpet yellow. L.
- MADONNA, perianth white, long sulphury white trumpet, flower drooping, very distinct. B.
- MRS. J. B. M. CAMM, perianth white and very elegant, trumpet sulphur-white, very graceful and distinct. B.
- MRS. HARRISON WEIR, perianth white, trumpet yellow elegantly recurved, flower medium-sized and distinct. B.
- MICHAEL FOSTER (*sulphurescens*), large sulphur-white perianth, large thick rich yellow trumpet, very distinct. L.
- MRS. JAMES WALKER, perianth white, imbricated and of fine quality, trumpet yellow. L.
- MRS. M. FOSTER, perianth sulphur-white, trumpet yellow. L.
- MURRELL DOBELL, perianth white and compact, trumpet yellow. L.
- PRESIDENT GARFIELD, perianth white, trumpet yellow and straight. B.

PRINCE OF WALES, perianth sulphur-white and perfectly formed, trumpet yellow. B.
PEABODY, perianth white, trumpet yellow, dwarf grower. B.
SIMS REEVES, perianth white and compact, trumpet yellow. L.
SIR R. PEEL, perianth white, trumpet yellow, elegantly flanged. B.
T. S. DORRIEN-SMITH, a very remarkable and distinct variety, trumpet yellow, short and very thick, perianth sulphur-white, broad, imbricated, and shorter than trumpet. B.
WILLIAM ROBINSON, very distinct, perianth sulphur, trumpet yellow. L.
LORIFOLIUS—
 A. F. BARRON, sulphur perianth, yellow trumpet. L.
EMPEROR, perianth deep primrose, very large fine form, trumpet rich full yellow, very distinct. B.
EDITH BARBER, perianth full primrose, yellow trumpet, small flower, dwarf grower. B.
 J. W. H. BARR, sulphur perianth broad and imbricated, yellow trumpet, dwarf sturdy grower. B.
LADY DOROTHY, primrose perianth, light yellow trumpet, dwarf grower, very distinct. L.
LORIFOLIUS (anceps), perianth sulphur, trumpet yellow.
LORD DERBY, perianth deep primrose imbricated, trumpet deep rich yellow, very thick. B.
MRS. W. GOLDRING, perianth sulphur, trumpet pale yellow, neat flower, dwarf grower. B.
 P. R. BARR, perianth deep primrose, fine form, trumpet rich full yellow; this very distinct variety is in all respects the same as Emperor, but a smaller flower. B.
RUGILOBUS, perianth primrose changing to sulphur-white, trumpet yellow, very distinct.
MOSCHATUS—
ALBICANS (the greatest white Spanish Daffodil), perianth white and shorter than trumpet, trumpet primrose changing to white and elegantly flanged.
CERNUUS (the drooping white Spanish Daffodil), perianth silvery-white and same length as trumpet, trumpet pale primrose changing to white.
CERNUUS PULCHER, perianth silver-white, large bold spreading trumpet primrose changing to white. L.
CECILIA DE GRAAFF, perianth sulphur-white with yellowish green line running down the back, trumpet narrow at base gradually widening to a spreading much flanged crown, very distinct. de G.
DR. HOGG, perianth white, trumpet long smooth and elegantly flanged, primrose changing to white. B.
DUCHESS OF CONNAUGHT, perianth sulphur white, yellow trumpet, small flower.
EXQUISITE, perianth sulphur-white, trumpet primrose passing to white, early and very distinct. L.
 F. W. BURBIDGE, perianth white, trumpet long-ribbed and elegantly gashed, sulphur changing to white, very distinct. B.
G. F. LODER.
LADY GROSVENOR, perianth white and shorter than the trumpet, sulphur trumpet elegantly recurved, very distinct. B.
MR. COWAN (Cowani), perianth white, trumpet sulphur, small flower, very distinct. B.
MR. MILNER (Milneri), perianth and trumpet sulphur, small neat flower, very distinct. B.
MRS. F. W. BURBIDGE, perianth white, trumpet straight, primrose changing to snow white, resembles somewhat F. W. Burbidge, and flowers at the same time. B.

MRS. JAMES BATEMAN, perianth white, of good substance, trumpet creamy-white, and very elegant. B.
MARCHIONESS OF LORNE, perianth sulphur-white, trumpet primrose passing to white; resembles Exquisite somewhat, but finer. L.
***MOSCHATUS** (the lesser White Spanish Daffodil). Now that the Spanish Pyrenees are being searched for the floral treasures brought to light in Parkinson's day, we hope to number this variety amongst them through reintroduction.
PALLIDUS PRÆCOX, this beautiful sulphur-white Daffodil was reintroduced into cultivation in 1882, after a lapse of nearly 300 years, by Messrs. Barr & Son; and has been found both in Holland and England to be the earliest of all Daffodils, and one of the handsomest. The present season it was flowering in the open ground at Tooting in January, and at the first meeting in February was awarded a first-class Certificate by the Committee of the Royal Horticultural Society. To many it may be interesting to read Parkinson's quaint description of this Daffodil, 1629:—" *Pseudo-narcissus pallidus præcox*, the early straw-coloured Daffodil. The leaves of this Daffodill are of a meane size, betweene the broadest and the narrower kindes, of a grayish greene colour, and not very long: the stalke riseth up a foot high or more, whereon standeth one large great flower, equalling the greatest Spanish bastard Daffodil, before described, in the largenesse of his trunkc, and having the brimmes turned up a little, which maketh it seeme the larger: the wings or outer leaves are in a manner as short, as they are in the greatest Spanish kinde (and not long flagging down, like unto the mountain kinds), and stand straight out right. All the whole flower is of one even colour, that is, of a fine pale yellow, somewhat like unto the colour of a lemon peeple or rinde, but somewhat whiter, which usually we call a strawe colour: the greatnessse of the flower, the earlinesse of the flowering, and the difference of colour from all the rest of this kinde, hath made me entreate of it apart by it selfe, as being no lesse worthy."—Parkinson's *Paradisi in Sole Paradisus Terrestris*, Edition 1629, p. 99.
PAUL ENGELHEART, perianth delicate sulphur-white, trumpet primrose, long, narrow and straight. B.
REBECCA SYME (the violet-scented Daffodil), perianth white, trumpet citron; this fine small flowering variety is as remarkable for its beauty as for its exceptional fragrance, which is possessed by no other Daffodil. B.
SIR STAFFORD NORTHCOTE, perianth white, long pale sulphur trumpet, very distinct.
SARAH TISDALE, perianth sulphur-white and somewhat twisted, trumpet sulphur-white, very elegant small flower. B.
TORTUOSUS (the great tortuosus white Spanish Daffodil), perianth pure white, usually twisted and somewhat shorter than the trumpet, which is pale sulphur changing to snow white.
WILLIAM GOLDRING (longipetalus), long snow white dog-eared perianth, which completely envelopes the trumpet, trumpet primrose, the flower is very drooping or cernuous. L.

MEDIICORONATI.**III.—GANYMEDES.**

***CALATHINUS (Redouté)**, Burbidge in *The Narcissus: its History and Culture*, figures this beautiful

species as coming from Brest, and ranging from a self white to a self yellow. Mr. Elwes at the Narcissus Conference exhibited what he called Calathinus, one of the late Rev. Hy. Harpur-Crewe's plants, quite a small self white flower. Messrs. Barr & Son had three under the names, Calathinus, Triandrus albus, and Triandrus albus elegans from Portugal. Thus it would appear there are geographical varieties, and that *N. triandrus* runs into *Calathinus*. The three forms exhibited by Messrs. Barr & Son were undoubtedly varieties of *Calathinus*, differing from the Brest form in being a little smaller, and the cup a little shorter than the divisions of the perianth. Mr. Burbidge's figure shows perianth and cup of the same length. Mr. Elwes' specimen being in a pot, and perhaps below its proper size, must be passed, but the three from Messrs. Barr & Son were evidently as fine as we may ever expect to see them ; and therefore, not to confuse them with Redouté's figure, and also in compliment to the lady who first sent the bulbs to Mr. Barr, they are named

CALATHINUS MRS. SHARMAN CRAWFORD, flowers variable in size, including those shown at the Conference, white, cup about three-quarters the length of divisions of the perianth ; perianth reflexed, completely hiding the tube and seed-vessel.

**TRIANDRUS*.

**TRIANDRUS CERNUUS* (the pale yellow).

TRIANDRUS CONCOLOR, uniform sulphur yellow.

**TRIANDRUS NUTANS* (*N. trilobus*, *Bot. Mag.*).

TRIANDRUS PULCELLUS (the white cupped), primrose perianth, cup white.—P. BARR.

(To be continued.)

REGISTER OF NOVELTIES.

NEW PLANTS.

ALOCASIA SANDERIANA, *Bull. Cat.* 1884, 11, with fig.—A remarkably handsome Araceous plant, of very distinct character. It has a tuberous root-stock, brownish green striately mottled erect petioles, and deflexed leaf-blades which are glossy, arrow-shaped with three lateral lobes on each side, peltately affixed, the midrib and border ivory white, the surface bright green with metallic blue reflections. It comes from the Eastern Archipelago, and is a grand and effective foliage plant; W. Bull.

CROTON TORRIGIANIANUM, *Pucci* (*Bull. R. Soc. Tosc. di Ort.*, 1884, 137, t. 7).—A handsome variety in the way of Queen Victoria, but with longer leaves. It is a hybrid raised in the gardens of the Marchesi Torrigiani, and has plain leaves about an inch broad, which are at first ribbed and veined with yellow, and subsequently take on a high crimson tint along the costa, the margins, and the transverse arching veins, the intermediate spaces being green. The stem and leaf-stalks are represented as being red. Italian gardens.

CYPRIPEDIUM GRANDE, *Rchb. f.* (*Gard. Chron.*, n.s., xv., 462).—One of the finest and most robust of the hybrid Lady's-slippers, raised in Messrs. Veitch's nursery, by Mr. Seden. It is a seedling from *C. Roczlui*, crossed by pollen of *C. caudatum*, and has robust sword-shaped leaves 2 to 2½ ft. long of a bright glossy green, and a many-flowered scape 3 ft. or more in height. The flowers are large, the dorsal sepal yellowish-white with yellowish-green veins, the petals ribbon-like pendulous, yellowish veined with green near the base, and pale crimson in the narrower upper portion, the lip prominent greenish-yellow, the infolded lobes whitish spotted with crimson, and the staminode pale yellow slightly flushed with crimson below, and having its upper edge fringed with blackish crimson hairs. Certificated both by R.B.S. and R.H.S.; Veitch & Sons.

PTERIS LONGIFOLIA NOBILIS, *Moore* (*Williams'*

Cat. 1884, 14).—A fine hothouse fern of palm-like character, imported from the South Sea Islands. It is an evergreen with fronds 4 to 5 feet high, having a pale brown rachis, to which the linear pinnæ 8—10 inches long are attached. It has the continuous linear marginal sorus which marks the pteridian forms. In its stately habit it approaches *P. moluccana*, and is like that plant very effective as an ornamental species of large growth, yet below the stature of a tree fern ; B. S. Williams.

SARRACENIA SWANIANA, *Bull. Cat.* 1884, 16, with fig.—A beautifully variegated hybrid *Sarracenia*, raised between *S. variolaris* and *S. purpurea*, and though more erect, partaking most of the character of *S. purpurea*. The petals are funnel-shaped, slightly incurved, with a broadish wing, greenish-purple, the lid cordate-ovate, bilobed, and as well as the inside of the tube closely veined with crimson. It is a well-marked and very handsome plant; W. Bull.

SELAGINELLA VIRIDANGULA, *Spring* (*Obs. Pl. Nov. Herb Van Heurck*, t. 29).—A fine scandent Club-moss with the habit of *S. Willdenovii*, the plant better known in gardens as *S. cæsia arborea*. It has elongated terete stems, furnished with scattered leaves, and producing alternate branches a foot or more in length, divided into ovate pinnæ 4—6 inches long, furnished with small close-set distichous obliquely oblong-falcate leaves, with smaller intermediate ones. The pinnæ are twice pinnately divided, the ultimate divisions all terminating in long elegantly quadrangular spikelets like those of *S. Willdenovii*, but with the bracts long and acuminate instead of short and ovate; South Sea Islands; B. S. Williams.

VRIESIA HIEROGLYPHICA, *E. Morren* (*L'Illust. Hort.*, t. 514).—A splendid Bromeliaceous plant, of rather large size, the long loriform leaves which are thin tough smooth and suddenly contracted to a point, forming a tuft four to six feet in diameter; these leaves are of a brilliant green, sometimes a bright yellow, marked with transverse irregular bands of deep green on the upper surface and of a very dark brownish purple beneath. These markings are more or less broken up so as to form a close series of coloured arabesques or hieroglyphical characters on the leaf surface. The flowers are not known, but in their absence it will form a beautiful object for all decorative purposes; Brazil; Compagnie Continentale d'Horticulture.

NEW FLOWERS.

AZALEA (INDICA) Souvenir de Marie Rosseel, a free-flowering variety of a lovely salmon-pink colour, promising to be very valuable both for exhibition and decorative purposes; 1st-class Certificate R.H.S., April 22; M. A. L. Rosseel.

ACER japonicum aureum, a very handsome Japanese Maple, the foliage of which differs from the type in that it is of a golden hue, and so constituting it a highly ornamental plant. *A. septemlobum elegans purpureum*, one of the Japanese Maples, having much divided leaves of a rich reddish colour, which in contrast with the tender green and other tints of kindred varieties, has a very telling appearance; 1st-class Certificate R.H.S., April 22; Veitch & Sons.

CARNATION (Tree) Mrs. McLaren, a crimson bizarre, and therefore a great novelty in this section; pale ground flaked with crimson and rose; fine form and full substance; 1st-class Certificate R.H.S., May 13; C. Turner.

CALOCHORTUS Benthami, a gem among bulbous plants, belonging to the Cyclobothra section of the genus, and resembling the better known *C. elegans*, but the flowers are bright yellow and plentifully produced; 2nd-class Certificate R.H.S., April 18; T. S. Ware.

DAHLIAS (Show).—The following are being distributed by Mr. C. Turner, of Slough:—*Mrs. Gladstone* (Hurst), a beautiful variety shown last September under the name of Mrs. Hurst, colour delicate soft pink, perfect in form and very constant; several 1st-class Certificates of merit. *Muriel* (Fellowes), neat, of full size, fine form, and very constant, and of a clear yellow colour. *Ruby Gem* (Harris), ruby crimson, with small yellow tip, good outline, and close compact centre. The following are Messrs. Keynes & Co.'s new varieties:—*Dewdrop* (Keynes), dark primrose, very neat and pretty. *Grand National* (Eckford), a fine large yellow self of excellent form. *Lucy Berry* (Keynes), lilac, suffused with white at the base of the florets; very pretty. *Mrs. F. Foreman* (Keynes), rich lilac, large and very useful. *Mrs. G. R. Jelford* (Keynes), a deep yellow self of excellent properties. *Mrs. W. Haskins* (Keynes), fawn colour, very pretty and of fine form. *Mrs. Staples* (Keynes), yellow, edged with crimson, neat and well formed. *Statesman* (Keynes), purplish-crimson, very constant and good.

DAHLIAS (Fancy).—*Duchess of Albany* (Turner), a sport from Gaiety, pale orange ground, with rich crimson stripes; full and constant: C. Turner. The following are being sent out by Messrs. Keynes & Co.:—*Arabella* (Keynes), buff with scarlet and crimson stripes. *Alderman* (Keynes), lilac heavily striped and spotted with purple. *Goldfinch* (Keynes) yellow striped with purple and tipped with white; very distinct and pretty. *Lottie Eckford* (Eckford), white, beautifully striped with purple; fine form.

DAHLIAS (Bouquet).—The following are Messrs. Keynes & Co.'s new varieties:—*A. F. Barron*, primrose, with pretty quilled petals. *Brunette*, red, often blotched and tipped with white, very pretty. *Golden Gem*, yellow, fine form and neat habit. *Little Prince*, deep crimson, distinctly tipped with white. *Royal*, light orange, edged with bright crimson; pretty quilled petals. *White Button*, small white, fine in colour and very free.

DAHLIAS (Single).—The following new varieties are being sent out by Mr. C. Turner:—*Dorothy*, white, shaded with rosy peach. *Duchess of Westminster*, pure white; extra fine. *Harold*, dark velvety maroon; extra fine. *Queen of Singles*, rich magenta suffused with rose, a beautiful variety. *Rupert*, bright crimson scarlet; extra fine. *Sunbeam*, deep yellow, extra fine; all raised by Mr. Turner. The following varieties are offered by Messrs. Kelway & Son, Langport Nurseries:—*Albert Victor*, crimson, shaded violet. *Dr. Benson*, vermillion. *Duchess of Albany*, silvery flesh. *Duke of Hesse*, rosy purple, edged with violet. *Duke of Teck*, amaranth, marbled with orange. *General Gordon*, brilliant scarlet, carmine centre, and violet edge. *General Graham*, yellow. *Hicks Pacha*, scarlet, fimbriated petals. *Hon. J. W. Chamberlain*, buff. *James Kelway*, white, each petal edged with red. *Lord R. Churchill*, crimson, shaded with violet. *Prince Louis*, yellow, edged with white. *Princess Christian*, French white, yellow centre. *Princess Victoria*, white, striped with lilac. *St. Blaise*, crimson maroon, edged with violet. *Voluptuary*, rose, with orange crimson centre.

MIMULUS MOSCHATUS, Cloth of Gold.—A very dwarf and dense-growing variety of *M. moschatus ruber*, but with flowers twice the size of those of the ordinary musk; the foliage handsomely scented; 2nd-class Certificate R.H.S., April 18; R. Dean.

PRIMULA SIEBOLDII, Brilliant, a variety with flat, smooth flowers, of fine shape, and of a bright magenta colour, something like *Laciniata* in hue, but with smooth-edged segments. *Purity*, pure white, flat, and smooth petals; very pleasing; 1st-class Certificate to each of the foregoing, R.H.S., April 18. Also *Nellie*, a very pretty pinkish-rose

variety with laciniate petals. *Mrs. Crossley*, pale lilac rose; flowers large and of fine form. *Arthur*, pale magenta purple; very smooth and of fine form. *Crimson King*, sparkling magenta, in the way of *Brilliant*. *Pearl*, pure white, but slightly tinted with lilac on the reverse of the petals. *Purple King*, pale purple, large, well formed, smooth flowers; very pleasing. *Polly*, bright pinkish rose, large, and of good form. *Othello*, lilac and rose, well formed, and very pleasing; *George Geggie*.

PELARGONIUM (Zonal), Belle Nancienne.—A variety remarkable for its large double flowers; they are of a peculiar shade of salmon pink colour; 1st-class Certificate R.H.S., May 13; J. Laing & Co.

PHLOX SETACEA, Vivid.—An Alpine variety, one of numerous seedlings raised by the late Rev. J. G. Nelson; it forms a dense tufted growth, covered with blossoms of good size, and of a bright salmon pink colour; 1st-class Certificate R.H.S., May 13; T. S. Ware.

ROSE, Etendard de Jeanne d'Arc.—A tea-scented variety remarkable for its freedom of bloom, and perpetual flowering character; colour, creamy white tinged with pink; flowers large, well shaped, and very handsome when well expanded; 1st-class Certificate R.H.S., April 22, H. Bennett; 1st-class Certificate R.B.S., May 21, W. Paul & Son.

GARDEN GOSSIP.

— **AT the Exhibition of the NATIONAL AURICULA SOCIETY (S.S.)** on April 22, a special meeting was constituted immediately after the luncheon, according to notice, to receive a statement from the Senior Honorary Secretary. As some misapprehension as to what took place appears to exist, we have been requested to publish the following:—

Mr. Dodwell, whose words we give *verbatim*, said—"The subject to which I have to refer is the statement made in the *Journal of Horticulture* of February 14, by a writer who assumes the signature of 'Fair Play,' viz., that 'Mr. Dodwell must be considered quite a nurseryman.' I am sorry I have to bring a question so personal forward for your notice and determination, but I doubt not you will think with me, I have no alternative. I have to ask, as the only favour I may ask at your hands, that apart from the manner and the person or persons by whom it has been raised, the question may be determined on its merits alone, and without any reference to ulterior consequences. If in your judgment I have lost the status I once held as an amateur, I will make whatever recompense I may for the sin I have in your eyes committed by showing as an amateur; but I submit I am, as I have ever been, save during the brief episode of my life when I was proprietor of Bradshaw Gardens, an amateur, and only an amateur. I submit the line of demarcation between the amateur and dealer is clear and distinct, and exists in the fact that the dealer not only rears, but buys and sells plants as a means of profit, whilst the amateur in rearing plants follows the bent of his inclination, and obtains no return, save as it may be his productions attain marked public favour. In other words, the dealer, as his profession suggests, legitimately seeks profit, the amateur may not. This is the principle I believe which governs the distinction in other pursuits where the terms professional and amateur are significant. Then, as a matter of fact, I have only further to state, excepting only the brief episode I have referred to, I have never made one penny either from my productions in the garden or from my pen. My labours have been

many and long, but they have had their origin, have been continued, and have ended solely in love. If the meeting desires to have proof of this I speak of as a fact, I will gladly supply it to any one deputed to make the necessary investigation, and seeing that we have the advantage of the presence amongst us of Mr. Welton, one of the partners of the eminent firm of accountants, Messrs. Quilter, Ball & Co., I remark, if this proof be required, that I will willingly place the needful documents in his hands."

The Chairman (Mr. J. T. D. Llewelyn) thought Mr. Dodwell felt this matter most acutely from the point of view suggested, that he had abused his position in the Society for his personal advantage; and speaking for himself, he declared his perfect confidence in Mr. Dodwell, and his sense that in every way, whether as an exhibitor or as Secretary, or as a distributor of new varieties of his own raising, he was in the fairest and fullest sense of the term an amateur; and further, so far as he knew and could judge, and he had followed his course with most watchful care, he had carried himself with perfect honour, and in every way justified their high appreciation of him. As regards the Societies there could be no question they had derived the greatest advantage from his labours, which would scarcely have been the case had Mr. Dodwell been sailing under false colours. One thing he had done as an amateur for amateurs. He had distributed seeds of carnation and picotees of such a quality as was never obtainable before, and he (the Chairman) had found inexpressible enjoyment in raising plants from Mr. Dodwell's seed, and regarding it as the product of a genuine and distinguished amateur. So far his own opinion on the personal question before them. (Hear, hear.) As regarded the *general* question as to the distinction between amateur and dealer, he was not quite prepared to advise what should be done. Should they go to the Council of the Royal Horticultural Society for an opinion?—"No, no"—or should the matter be brought before a general meeting of the Societies?—Mr. Hibberd, after indulging in a little humorous paradox, said the argument from the point of view of profit was a weak one, because a nurseryman might say the same thing; and, as a matter of fact, nurserymen were often losers by floriculture as amateurs were. The difference between them lay in the motive much more than in the result. As regarded the distinction between an amateur and nurseryman, it would be well, doubtless, to act on the admirable suggestion of Mr. Llewelyn, and discuss the subject at a general meeting. In the meantime he had a proposition to make to bring this matter to a very practical issue—he requested the meeting to join him in drinking Mr. Dodwell's jolly good health. The proposal was received with enthusiasm. Mr. Dodwell's health was drunk with musical honours, and the charge made by the anonymous writer referred to was set down as unfounded.

— THE HULL BOTANIC GARDENS will be the centre of a grand Horticultural Exhibition to be opened on July 2 and continued to July 4. A very comprehensive schedule has been issued extending to 105 classes. The limit of time for making entries is fixed for June 26.

— ONE of the troublesome ENEMIES OF THE CARNATION, especially in the early spring when it is putting forth its young leaves, is the house sparrow, which in town gardens and no doubt in country ones also, feeds on the tender foliage as it pushes up, to the great injury of the plant. The only remedy seems to be that of frightening the birds, if possible, but that is rather

difficult. On this point the Rev. R. Markham Hill writes: "The black thread is splendidly triumphant over the sparrows. The plants look splendid, all signs of their mutilation having disappeared." Black thread seems to be more efficient than white, as the birds do not see it till they come close upon it, when they are all the more startled from the suddenness of discovery or contact. It is, moreover, less unsightly in the garden.

— WE are glad to learn that the case of the children of the late Mr. GEORGE RUDD has been taken up by influential residents at Bradford, who are working to place them in an orphanage. Under these circumstances there appears to be no further necessity for the subscription suggested in our last number by Mr. Dodwell.

In Memoriam.

— MR. ALEXANDER MOORE, Superintendent of the State Nursery, and formerly of the Dublin, Chelsea, and Kew Botanic Gardens, died at Campbelltown, New South Wales, of consumption, on March 14, aged 29 years. He was a very estimable young man, and had won the respect and esteem of all those among whom he had been living. The Government or State Nursery, over which he presided, was established some four years ago, principally for providing young stock of the best kinds of trees for the purpose of re-afforesting the country.

— M. JEAN VERSCHAFFELT, of Ghent, died on April 20, after a long and painful illness, in his 74th year. M. Jean Verschaffelt retired from the business after the death of his adopted son, Jean Nuytens-Verschaffelt, who died a few years ago. The deceased gentleman was highly respected, not only in his own country, but abroad, as is testified by the various titles of honour bestowed on him by foreign Governments.

— M. ALPHONSE LAVALLÉE, the President of the National Horticultural Society of France, died on May 3, at Segrez. At this place M. Lavallée had been accumulating since 1857 a collection of Trees which for extent and careful nomenclature was without a rival, and his *Arboretum Segrezianum* and the accompanying *Icones* is one of the most carefully elaborated recent catalogues of trees and shrubs which we possess. His most recent publication consisted of illustrations and descriptions of large-flowered species of Clematis; in reference to this work, it is to be regretted that the strictures published on his unfounded assertion that Clematis Jackmanni was an introduced plant and not a hybrid, have not, as far as we know, been answered.

— MR. ALEXANDER J. MAULE, of the Stapleton Nurseries, Bristol, died recently at the age of 63 years. He succeeded his father in carrying on the business, and in early life was an introducer of new Conifers, Orchids, &c. The charmingly brilliant Pyrus Maulei, one of the Japanese Quince family, was introduced by him and commemorates his name. "He was a peculiarly quaint, original, loveable man, rich in humour, and inexhaustible in kindness."



W. H. Fitch del

Chromo Stroobant Chent

Lilium Washingtonianum [varieties of]

LILIUM PURPUREUM.

[PLATE 613.]

SOME ten years since we published a figure of one of the forms of this plant, then known as a variety of *L. Washingtoniana*, and we now offer illustrations of some other forms which have been imported.

Lilium purpureum is a handsome plant with sweet-scented flowers, varying considerably in colour. It is erect, and remarkably symmetrical in habit, one and a half to two feet in height, furnished with ob lanceolate leaves, which are from an inch to an inch and a half long, and arranged in numerous whorls. The whole surmounted by a raceme of several of its handsome flowers, which are white variously spotted with purple, or more or less deeply tinted with rosy purple.

It is a native of the Yosemite Valley in California, and was introduced about ten years since by Mr. Bull, of Chelsea.—T. M.

THE GARDEN PINK.

THE end of June or early in July is the time of the year that these delicately perfumed and withal beautiful flowers delight us in the open garden. When they are well grown they do not fail to please any one who delights in floral beauty or sweet perfume. They are as much garden flowers as the Carnations and Picotees are, but they are unfortunate in not having a specialist like Mr. Dodwell to do for them what he has done for the Carnation and Picotee. Mr. Charles Turner, of Slough, still grows a large named collection of them ; and some growers in the north have been raising new flowers, which, however, I have not seen, as they have not been exhibited in the south.

A Pink show would scarcely be so interesting as a Carnation show, or even a Tulip show, but for all that Pinks could be entered in schedules more often than they are. It would be some encouragement for amateurs and cottagers to grow such flowers if there were classes for them in the schedules of any of the shows held between the third week in June and the second week in July, or even later further north. The Crystal Palace Company offer prizes for them this year, and it would be well if other societies would take a leaf out of their book.

As soon as or even before the blooms are over, it will be time to take off the "pipings," as the small growths clustering around the base of the flower stems are termed. These are cut off near their base, and they are then dibbled in out of doors in a shady place, or they are propagated more rapidly in a gentle hotbed. When they are well rooted let them be planted out in the open ground about four inches apart, in good soil, to be ultimately planted in the borders, or in beds about nine inches apart.

There are some varieties of garden Pinks well adapted for forcing. Perhaps most of the fine-laced varieties could be forced. For instance we have grown for several seasons a fine-laced kind named *Mrs. Moore*, which forces well. If it is forced to flower very early the lacing does not hold out well, but we had it very beautifully laced indeed in May and June this year, six weeks before there is any chance of laced Pinks being in flower out of doors. We take the cuttings off these Pinks early in April and up to May, and being propagated so early they form large tufts, or more properly clumps, which, being potted into six or seven inch pots early in September, become well established before the cold weather sets in. We begin to force a few of them about the end of December ; they must at that time be kept near the glass in a gentle heat, for if they are too far from the glass they become drawn and weakly. I must say that those early forced plants are not nearly so beautiful as the later ones ; we get beautiful forced Pinks in April and May, or up to the time in June that they come in out of doors. Green fly is a rather troublesome pest, but it can be destroyed by dipping in soapy water, or by fumigating with tobacco smoke. *Mrs. Moore* is certainly the best laced variety, but *Mrs. Pettifer*, of more delicate constitution, is also a pretty variety. The only white one we grow is *Lady Blanche*, which is a most perfect flower, with a well-formed pod that does not burst ; the constitution is rather delicate, but it can be grown well with good treatment. *Lord Lyons* is by far the best of the coloured varieties ; it has a rosy purple ground colour, with darker markings on the petals ; it has an excellent habit, which *Derby Day*, another similarly marked variety by the same raiser,

has not. The old *Anna Boleyn* is not nearly so rich in colour as *Lord Lyons*, but it is worth growing in the borders; and I saw it in the greenhouse in Messrs. Veitch's nursery a few weeks ago, proving that it is yet grown to force.—J. DOUGLAS, *Great Gearies, Ilford.*

CATTLEYA REINECKIANA SUPERBISSIMA.

A LOVELY plant of this bearing thirteen blooms has flowered at Sir Nathaniel de Rothschild's, at Tring Park, where so many rare Orchids are to be found. Its flowers are between 6 inches and 7 inches across, of good *Cattleya Mossiae* form, and delightfully fragrant. The sepals and petals are pure white, the lip white handsomely fringed, the tube of labellum lined with violet, centre orange with a ray of violet lines and dots running towards the margin. The colours are very distinctly set on, and not washed into each other as in other forms of this plant. The chaste beauty is growing in a 6-inch teak basket, and it is one of the finest things of the season. Mr. E. Hill must be complimented on his treatment of the plant and Messrs. F. Sander & Co. for having imported such a lovely treasure. It belongs to the *C. Mossiae* section, and is allied to *C. Wagneri*.—JAMES O'BRIEN, *Harrow.*

ORIGIN OF THE FANCY DAHLIA.

INQUIRIES are sometimes made as to the origin of the Fancy Dahlia. In *The Florist* for 1849 there is a very interesting account of the introduction of the Dahlia to this country, and as this volume is out of print, I shall be pardoned if I state that Mr. Sabine, in the *Transactions of the Horticultural Society of London* (vol. iii.), gave an excellent account of the introduction of this flower; and stated that the merit of first carefully attending to and cultivating the Dahlia belongs exclusively to the continental gardeners, and especially those of France and Germany. Many persons who visited the Continent on the return of peace in 1814 were surprised with the splendour and variety of the Dahlias in the foreign collections.

As far back as 1808 a French amateur, Count Lelieur, was directing his attention to

Dahlias. "He successively hybridised the few varieties he possessed, until he obtained purples, dark reds, cherry reds, buffs, and pale yellows, and by continued attention the seedlings raised under his care at St. Cloud made rapid advances in perfection. He also succeeded in raising some striped and shaded single varieties, the parents of our 'Fancies.'"

In 1818 our English collections contained several double varieties, and these, from their superior beauty, form, and size, soon banished the single sorts from our gardens. But some of the single varieties, as for instance Paragon, which is a Fancy Dahlia, remained for some years in catalogues, notwithstanding the growth of the double forms. I have a Dahlia catalogue issued in 1834 in which Paragon finds a place; but it is pretty well the only single variety included.

It would appear then that we are indebted to Count Lelieur for the origin of our Fancy Dahlias. But it may be supposed that these were at first looked upon, by English florists at least, as of lesser value than the Show varieties, as they were not nearly so rapidly improved; and it would seem that while the English florists turned their attention to the improvement of the Show varieties, the continental florists, and particularly the Frenchmen, took up the improvement of the Fancies.

My earliest recollection of Fancy Dahlias is associated with that wonderful advance seen in Empereur de Maroc, dark maroon tipped with white, a variety that remained in cultivation long after its contemporaries almost without exception had ceased to be grown. This was a French variety; so was Oeillet Parfait, orange striped with red; and Madame Wachy, dark purple tipped with white. It was when the late Mr. John Keynes took up raising Seedling Fancy Dahlias that such wonderful strides in the way of improvement were witnessed; and now the Fancies of the past four or five years almost if not quite rival in size and symmetry the most perfect of the Show Dahlias.

A few of the best Fancy Dahlias will be found in Charles Wyatt, Gaiety, George Barnes, James O'Brien, Jessie McIntosh, Lady Antrobus, Miss Browning, Miss Lilly Large, Professor Fawcett, Rev. J. B. M. Camm, and Sam Bartlett, all raised by Keynes; and in

addition Fanny Sturt (Pope), Laura Haslam (Fellowes), Magician (Fellowes), Mr. Saunders (Turner), Peacock (Turner), Prospero (Godwin), Queen Mab (Turner), and Zouave (Fellowes).—R. DEAN, Ealing.

DESCRIPTIVE LIST OF NARCISSI.

(Continued from p. 94.)

IV.—QUELTIA.

INCOMPARABILIS—

- INCOMPARABILIS, as found on the Pyrenees, perianth yellow, cup usually tinged orange.
- I. CONCOLOR, perianth yellow, cup yellow, usually free from orange stain. L.
- AUTOCRAT (expansus), perianth yellow, cup much expanded and usually free from orange stains. B and L.
- BELLA (minor), perianth yellow, cup yellow, and very neat.
- BLUCHER, perianth and cup yellow, much stellated and high shouldered. L.
- CHANG, perianth and cup yellow, flowers large, plant tall. L.
- EDWARD HART, perianth and cup full yellow, very distinct in perianth and cup. L.
- ECLIPSE (grandiflorus), perianth and cup yellow, cup and flower large. B. and L.
- FRANK MILES, perianth yellow, very large and remarkable, cup large and neat. L.
- HECTOR, light yellow starry perianth, cup slightly stained orange. L.
- JENNY LIND, slightly reflexed yellow perianth, expanded yellow cup. L.
- PROVOST, perianth yellow, cup expanded. B.
- SUN-RAY (stellatus), perianth and cup yellow, flower starry. L.
- SYCORAX, perianth and cup yellow, flower starry. B.
- WELLINGTON, perianth and cup yellow, tall grower. L.
- I. LEEDSI (figured in *Gardeners' Magazine of Botany*, iii. 169), perianth yellow, cup heavily stained with scarlet. L.
- C. J. BACKHOUSE, the most remarkable and attractive of the yellow forms of Incomparabilis, perianth yellow, medium size, cup very large, long and rich orange-scarlet colour. B.
- FIGARO (expansus), perianth yellow, cup large spreading and stained orange-scarlet, flower large and well formed. L. and B.
- FAIRY (marginatus minor), perianth yellow, cup marginated orange-scarlet. L.
- GLORIA MUNDI, perianth medium size, cup large and very much expanded, heavily stained bright orange-scarlet. B.
- GLOW (marginatus), perianth yellow, cup marginated orange-scarlet. L.
- GOUANI (Redouté) (the lobed orange rim).
- MRS. A. F. BARRON, perianth yellow, cup straight and narrow, marginated bright orange-scarlet, small very distinct flower. B.
- SPLENDENS, perianth yellow, cup yellow, stained orange.
- SUN-LIGHT (stellatus), perianth yellow, cup stained orange, flower starry. L.
- TITAN (grandiflorus), perianth yellow, cup marginated orange, flower large and well formed. B.
- WINSLOW, perianth full yellow and large, cup yellow, slightly tinged orange.
- I. SULPHUREUS, perianth sulphur, cup yellow. L.
- ASTRÆA (aureo-tinctus), perianth sulphur, cup yellow, edged orange. L.
- BEAUTY, perianth sulphur barred yellow, cup large marginated orange, remarkably large distinct flower. B.
- C. H. DEE, perianth sulphur and very large, cup primrose edged orange, very fine, distinct variety. B.
- DARLING (marginatus), perianth sulphur, cup yellow, edged orange. L.
- GIL BLAS (stellatus), perianth sulphur, very starry, cup large and spreading. L.
- HOGARTH, perianth primrose, cup yellow, large and spreading, very distinct. B.
- JOHN BULL (expansus), perianth sulphur, cup large and spreading, fine large flower. L.
- JOHNNY SANDS, perianth sulphur, cup spreading, very distinct. L.
- MAGOG (grandiflorus), perianth sulphur, cup large, fine large flower. B. and L.
- J. F. MESTON, perianth sulphur and broad, cup large, spreading, and stained orange. B.
- J. T. D. LLEWELYN, perianth light yellow, large conspicuous orange cup, a very distinct large flower. B.
- KING OF THE NETHERLANDS, perianth sulphur, cup very large and spreading, stained orange, very distinct. B.
- LONGSHANKS, perianth sulphur, cup large, plant tall. L.
- MISS NEILSON, perianth sulphur and broad, cup light yellow, very distinct.
- MRS. MESTON, sulphur perianth, large fine cup. B.
- NABOB, perianth sulphur marbelled, cup large and spreading. L.
- QUEEN SOPHIA, perianth sulphur, cup very large, spreading, and frilled, heavily stained orange-scarlet. B.
- QUEEN MAB (marginatus minor), perianth sulphur, cup slightly stained orange. L.
- SIR CHRISTOPHER WREN, perianth sulphur, large spreading cup. B.
- I. ALBIDUS, perianth sulphur-white, cup yellow. L.
- ANNIE BADEN (aureo-tinctus), perianth sulphur-white, border of cup elegantly contracted and stained orange. L.
- ADONIS, perianth sulphur, of fine form, neat yellow cup, dwarf growth. L.
- ALBERT VICTOR, large sulphur-white perianth, large and elegantly expanded cup, very distinct. L.
- BIANCA (expansus), sulphury perianth, large expanded cup. B.
- BRIDE, perianth sulphur, cup yellow and expanded, dwarf grower. L.
- CHARLES HOOPER, perianth sulphur-white, cup yellow, elegantly expanded. L.
- CUPID (stellatus), perianth light primrose and starry, cup yellow. L.
- CYNOSURE (albidus Leedsi), large primrose perianth changing to white, large conspicuously stained orange scarlet cup, remarkably showy and distinct. L.
- DANTE, sulphur-white perianth, cup very large and gracefully expanded. L.
- FITZJAMES, perianth creamy white, cup yellow, much expanded, very distinct. B.
- GOG (grandiflorus), large creamy white perianth and large yellow cup. B.
- JOAN, perianth sulphur-white, cup suffused orange. L.
- JANE KOLLE, sulphury perianth, very distinct, cup spreading. B.
- PRESTIOS, perianth sulphur, cup yellow tinged with orange. L.

LORENZO, perianth slightly dog-eared, soft primrose changing to white, cup yellow, a very distinct fine variety. L.
 MRS. SYME, perianth short sulphur-white, cup yellow, large and spreading, flower comparatively small, plant tall, and altogether very distinct. B.
 PRIMROSE GEM, perianth primrose, large yellow cup, very fine. B.
 THEMISTOCLES, perianth sulphur, cup yellow, very fine. L.
 VESTA, perianth sulphur white, cup large and expanded.
 I. PALLIDUS, perianth primrose-white, cup yellow. L.
 PRINCESS MARY, perianth creamy white, broad and well imbricated, cup suffused orange-scarlet, large, very much expanded and perfectly smooth, fine form.
 PRINCE TECK, perianth creamy white, broad and imbricated, cup yellow, large, very expanded and perfectly smooth, fine form.
 PERICLES, perianth primrose, cup pale yellow, very distinct.
 SEMIPARTITUS, perianth pale primrose, cup sulphur, deeply and distinctly lobed, a very remarkable flower. L.
 I. ALBUS, perianth white, cup yellow. L.
 CONSUL CRAWFORD (Crawfordii), perianth white tinged yellow, cup yellow, large flower. L.
 BURDETT, perianth white, neat yellow cup. L.
 CLARIBEL, perianth creamy white, cup yellow. L.
 DESDEMONA, perianth white, cup large and clear yellow. L.
 DOVE (nanus), perianth white, yellow cup, small flower. L.
 DR. GORMAN, perianth large and white, large yellow cup. Haworth's Queltia Alba, the great white.
 DUKE OF BUCCLEUCH, perianth white, cup yellow, tall grower. L.
 FAIR HELEN (elongatus), perianth creamy white and well formed, cup straight and elegantly edged with orange. L.
 FORMOSUS, perianth sulphur white, cup yellow, finely finished. B.
 G. F. WILSON, perianth white, fine form, cup large and stained with orange. B.
 GOLIATH, large white perianth barred with yellow, large cup. L.
 HARPUR-CREWE, perianth white, fine yellow cup. L.
 H. C. SMITH, perianth white, cup yellow, habit of growth distinct. L.
 JAMES BATEMAN, perianth white, with large yellow expanded cup. B.
 LOUIS SERRES, perianth white, cup yellow, edged orange and expanded. B.
 MARMION (aurantius), perianth white, cup yellow, stained with orange. L.
 MARY ANDERSON (single Orange Phoenix), perianth pure white, cup bright orange-scarlet, very distinct. Origin unknown, supposed to be a sport from Tazetta gloriosa.
 MONTROSE, perianth creamy white, fine orange-yellow cup. B.
 MRS. C. J. BACKHOUSE, perianth pure white and broad, cup yellow and very long, quite distinct. B.
 MRS. G. F. WILSON, perianth white, cup fine form and expanded. B.
 PARTOUT, perianth white, cup large yellow. L.
 POITEAU, perianth white, cup yellow, a robust grower, with fine quality. B.
 QUEEN BESS (albus magnificus), perianth large white, with large light yellow much expanded cup, very distinct. L.

ROLAND (expansus), perianth white, with large yellow expanded cup. B.
 ROSA BONHEUR, perianth large white, large yellow cup. B.
 STELLA, perianth large white, with fine yellow cup. B.
 SURPRISE, perianth creamy white, cup yellow. L.
 WILLIAM BULL, perianth white tinted sulphur, yellow cup, distinct. L.
 I. GIGANTEUS James Dickson (Sir Watkin), perianth rich sulphur, cup yellow, tinged with orange; the largest in the Queltia section. P.
 ODORUS = *calathinus* of *Bot. Mag.*, (the great 6-lobed), perianth and cup full yellow. The group Odorus is represented in Haworth's Monograph by nine names. At present only three can satisfactorily be made out, and one is considered a synonym, so that in 1885, when the Conference meets to receive the report of its Committee, it is hoped that not only the missing five of this group will be represented, but that the missing ancient Daffodils generally will appear in the collections staged. While, therefore, Mr. Burbidge is getting his next paper ready, cultivators and amateurs at home and abroad should be diligent in collecting together, if possible, the Daffodils known to Parkinson, Linnaeus, Clusius, Rübeck, Decandolle, Redouté, Haworth, Salisbury, and Herbert.
 *CAMPERNELLI (the late great 6-lobed), perianth and cup full yellow. See *Herbert's Amaryllidaceæ*, t. 39, fig. 8.
 RUGULOSUS (the great wrinkled cup), perianth and cup full yellow. See *Herbert's Amaryllidaceæ*, t. 39, fig. 11.
 *INTERJECTUS (the great curled cup), perianth and cup full yellow. See *Herbert's Amaryllidaceæ*, t. 39, fig. 10.
 *LETUS (Curtissi), perianth and cup full yellow. See *Herbert's Amaryllidaceæ*, t. 39, fig. 14.
 *TRILOBUS (the lesser 3-lobed), perianth and cup full yellow. See *Herbert's Amaryllidaceæ*, t. 39, fig. 13.
 MINOR (pseudo-juncifolius), perianth and cup full yellow, flowers small, plant of dwarf growth.
 *HEMINALIS (the narrow cupped), perianth and cup full yellow. See *Herbert's Amaryllidaceæ*, t. 39, fig. 12.
 JUNCIFOLIUS, flowers variable in their size and shape of cup, a slender growing dwarf species, with small neat yellow flowers. See *Burbidge's Narcissus, its History and Culture*, t. 27.
 *APODANTHUS, small yellow flower.
 RUPICOLUS, small yellow flower, cup more spreading than in the type.

PARVICORONATI.

V. HERMIONE.

JONQUILLA—

MAJOR (the large Jonquil).

MEDIA (the lesser Jonquil).

MINOR (the least Jonquil).

These are the sweet-smelling Jonquils. Since Haworth's time they have become confused, and we hope the gathering of 1885 will supply the materials necessary for clearing up the confusion.

TAZETTA.—We have not attempted to enumerate all the species and varieties of this very extensive group of Daffodils, but have limited the list to a few which are either of special interest or decorative value. † indicates the species, the others are Dutch varieties.

White with Citron, Yellow, or Orange Cup.

- BAZELMAN MAJOR† (*Trewianus*), broad white large perianth, cup stained orange.
 GLORIOSUS, perianth white, cup orange.
 GRAND MONARQUE† (*floribundus*), broad white perianth, cup yellow.
 GRAND PRIMO, perianth white, cup citron.
 GROOTVOORST, perianth white, cup citron.
 HER MAJESTY, broad white perianth, cup orange.
 LOUIS LE GRAND, perianth primrose, cup yellow.
 LUNA,† perianth white, cup citron.
 *BARLÆ.†
 *MEDITERRANEUS,† perianth white, cup tinged orange.
 *GANYMEDOIDES,† perianth sulphur-white reflexed, cup orange, very distinct.
 *OCHROLEUCUS,† perianth milk-white, cup citron.
 ORIENTALIS,† perianth white, cup stained orange.

Yellow with Yellow or Orange Cup.

- APOLLO, perianth primrose, cup deep yellow.
 AUREUS,† perianth and cup full yellow.
 *CHRYSANTHUS,† perianth lemon-yellow, cup golden yellow.
 *BERTOLONII,† perianth and cup full yellow.
 BATHURST, perianth primrose, cup orange.
 GRAND SOLEIL D'OR, perianth rich yellow, cup orange.
 JAUNE SUPRÈME, perianth primrose, cup orange.
 ITALICUS,† perianth pale lemon, cup sulphur.
 INTERMEDIUS,† perianth primrose, cup yellow.
 BIFRONS,† perianth full yellow, cup orange.
 *PRIMULINUS† (the Cowslip cupped).
 *BICRENATUS† (the large Cowslip cupped).
 *RADIATUS.†

- LACTICOLOR,† perianth pale lemon, cup yellow.
 LAURA, perianth primrose, cup orange.
 LORD CANNING, perianth primrose, cup yellow.
 MERCURIUS, perianth primrose, cup orange.
 SCHIZANTHES, perianth primrose, cup yellow elegantly lobed. This forms the genus *Schizanthes* of Haworth, and is figured in *Bot. Mag.*, t. 948, as *N. orientalis* β , but subsequently under t. 1298 referred to *N. incomparabilis*.
 SIR ISAAC NEWTON, perianth yellow, cup orange.

White with White Cup.

- CANARIENSIS,† perianth and cup white, small neat flower.
 *DUBIUS,† perianth and cup white. (Burbidge states that it grows about Toulon, Marseilles, Avignon, and Nice; will some one send flowers to one of the Horticultural Society's meetings in 1885?)
 PACHYBULBUS,† perianth and cup white, small neat flower.
 PAPYRACEUS† (*unicolor, niveus*), perianth and cup white, full sized flower; this is the *Narcissus* known in commerce as Paper White, and much used for early forcing.
 *PANIZZIANUS,† perianth and cup white.
 POLYANTHUS,† perianth and cup white; this plant has been naturalised on the Islands of Scilly for generations it is supposed.

AUTUMN-FLOWERING—

- VIRIDIS,† flowers green; reintroduced into cultivation by Mr. George Maw, winter 1883.
 SEROTINUS,† perianth white, cup yellow, small flower.
 ELEGANS,† perianth white, cup yellow.
 *OBSOLETUS,† perianth white, cup yellow.

VI. EUNARCISSUS.

POETICUS divides naturally into early and late flowering varieties. This not being generally known we have followed Haworth. It is

from the early section, especially *Poeticus ornatus*, that Covent Garden is supplied with cut flowers of *Poeticus* from January to April. The growth of two flowers on a stem is common to all the *Poeticus*, early and late, but it is not constant; sometimes three flowers are met with, but this is very exceptional.

- ANGUSTIFOLIUS (*radiiflorus*), perianth pure white, narrow, cup margined orange-red.
 OENATUS (the flat-crowned saffron rim), perianth pure white, broad and well formed, cup margined with scarlet.
 GRANDIFLORUS, perianth pure white, very large, cup more or less suffused with crimson.
 POETARUM (saffron cuffed), perianth pure white, broad, cup suffuse1 with bright orange-scarlet.
 *SPATHULATUS (the lesser saffron rim), perianth white, cup small, edged with saffron.
 TRIPODALIS, perianth pure white, cup full size, and margined with saffron.

MAY-FLOWERING POETICUS—

- POETICUS of *Linnæus* (middle size), the flowers of this are about an inch in diameter, very sturdy and finely formed, perianth pure white, cup edged with saffron; the single of the small double white *Gardenia*-flowered *Poeticus*.
 RECURVUS (the drooping leaved); this is common in English gardens; perianth pure white, reflexed somewhat, with a slight doubling inwards longitudinally. The leaves droop so much that the plant looks untidy. Are there varieties of this with less drooping foliage?
 MAJALIS, this is figured in Herbert's *Amaryllidaceæ*, pl. 40, fig. 2; divisions of the perianth pure white, well-formed, and generally flat, cup edged with saffron, leaves erect.
 STELLARIS, for some weeks before the flower expands may be noticed a little bladder-like distended spathe about an inch long, from which in due course emerges the flower; perianth pure white, cup margined with saffron.
 PATELLARIS (the large broad petalled), the *Narcissus purpureus maximus* of Parkinson, tab. 75, fig. 2, and the single of the large double white *Gardenia*-flowered *Poeticus* so abundant everywhere; perianth pure white, flat, finely formed, with the large cup edged with saffron, leaves erect.

- VERBANUS (*verbanensis*); in gardens this graceful little species is taller and larger flowered than figured by Herbert, tab. 37, fig. 2; perianth white slightly tinged with cream, cup edged with saffron. Verbanus is a corrected name of Herbert's which seems to have been overlooked.

- *PURPUREO-CINCTUS (the dwarf purple rimmed); this, Parkinson calls *Narcissus minimus medio-purpureus*, and says it was sent to him by Mr. John de Franqueville, adding, "but his naturall place wee know not."
 *CROCEO-CINCTUS (the dwarf saffron rimmed); this Parkinson calls *Narcissus medio-croceus tenuifolius*, and in his quaint fashion informs us "these Daffodils have been brought us from the Pyrenæn mountains, amongst a number of other rare plants."

Herbert is of opinion that the above two *Narcissi* must be nearly allied to *Poeticus verbanus*, and as amateurs are now interesting themselves in collecting Daffodils, the loveliest and hardiest of all spring flowers, these two may be rediscovered. Herbert states that *Poeticus verbanus* was "brought to Bolton Percy in Yorkshire a few years ago, by Mrs. Robert Markham, who found it growing in

a pasture about a mile from Baveno, near Lago Maggiore, on the side of the road to Milan, the bulbs being found single and scattered about the pasture, not growing in tufts."

VII. AURELIA.

BROUSSONETII, flowers white; figured by Burbridge, plate 47.

We now come to the plants which are either known to be, or are supposed to be of Hybrid origin, and propose to describe briefly the garden varieties of each, ranging them in groups under their respective types, which are first briefly defined.

MEDIICORONATI.

HUMEI (*incomparabilis* × *Pseudo-Narcissus*), nodding flowers with straight cup, nearly as long as the dog-eared floppy perianth; tube variable in length.

HUME'S WHITE, perianth and trumpet silvery white; a very graceful plant. L.

HUME'S SULPHUR (*albidus*), perianth sulphur white, trumpet yellow, a very distinct plant. L.

HUME'S CONCOLOR, perianth and trumpet uniform yellow, a very remarkable hybrid. L.

HUME'S GIANT (*monstrosus*) perianth yellow changing to sulphur, trumpet yellow; flower very large and of extraordinary character. L.

BACKHOUSEI, bold habit; flowers horizontal with distinct basal tube, and long cup nearly equalling the spreading perianth.

BACKHOUSEI, perianth sulphur white, spreading, trumpet yellow; a remarkably fine hybrid. B.

CUPID, perianth sulphur-white, trumpet yellow, medium sized flower. Leichtlin.

DAISY, perianth sulphur-white, trumpet yellow, medium sized flower. Leichtlin.

H. J. ELWES, perianth large yellow, with large deep yellow trumpet; a wonderful hybrid. B.

MACLEAI (*Pseudo-Narcissus* × *Tazetta*), sturdy habit, 1-2-flowered; flowers small, horizontal, with short tube, spreading perianth, and cylindrical cup.

MACLEAI, perianth white, yellow cup, small neat flower.

MAJOR (*Sabini*), perianth large white, cup yellow.

**PARKINSONI*, perianth white, cup yellow. No. 1 of the three natural hybrids found on the Pyrenees by Mr. H. E. Buxton in 1881 may prove to be this plant.

NELSONI, 1-flowered; flowers horizontal, with short tube below the broad spreading perianth, the cup cylindrical, rarely expanded at the mouth.

NELSONI, perianth large white, cup yellow, straight, and usually suffused with orange on first expanding. L.

AURANTIUS, perianth broad, white, flat, and spreading, cup suffused with orange scarlet, ribbed and expanding at the mouth. L.

EXPANSUS, perianth broad, white, flat, and spreading, cup yellow and expanded. L.

MARGARET JONES, a hybrid of Mr. Leichtlin's, Empress × *Poeticus grandiflorus*, perianth sulphur-white, somewhat wavy, cup yellow.

MAJOR, perianth large white, cup yellow and straight, usually suffused with orange on first opening; a tallish grower. L.

MINOR, perianth white, cup yellow, small flower and comparatively dwarf; it may be distin-

guished by the pistil projecting a trifle beyond the mouth of the cup. L.

PULCHELLUS, perianth white, cup yellow; it can be easily distinguished by the perfect campanulate shape of the well-imbricated flowers, and their somewhat drooping character on first opening. L.

WILLIAM BACKHOUSE, perianth white, cup yellow; this is evidently the same cross as the foregoing, but without the colouring matter; the cup is pure yellow, thus showing that Mr. Leeds and Mr. Backhouse used similar flowers in crossing. B.

BERNARDI, perianth white, cup yellow, sturdy foliage. The Hon. Mrs. Barton, Straffan House, County Kildare, collected this handsome hybrid a few miles from Luchon, on the Pyrenees, 1878, and it has been verified by Mr. Burbidge as the type *Bernardi*.

No. 1: this on further investigation may prove to be *Macleai Parkinsoni*, re-introduced by Mr. H. E. Buxton, 1881, and found on Pic Enteade, near Luchon. Mr. Buxton brought home at least three varieties, that is No. 1, and the two following, and although they have all the appearance of being produced by the same cross as Mrs. Barton's plant, they are very different in habit, the leaves being more numerous, and the flowers smaller and more abundant. The members of the Daffodil Conference may be assured there is some interesting work in store for them in 1885.

FRITTON DECOY, perianth white, cup yellow edged with orange.

H. E. BUXTON, perianth white, cup suffused with orange-scarlet.

TRIDYMUS, near Nelsoni, but with a somewhat more obconical tube, 1 to 3 usually 2-flowered; flowers varying much in size.

A. *RAWSON*, large bold yellow well-imbricated flowers, of which there were two on the specimen, but Mr. Rawson expects three or four flowers on his plant in 1885. Rawson.

DUKE OF ALBANY, perianth sulphur, cup orange. B.

DUCHESS OF ALBANY, perianth sulphur, cup yellow. B.

GRAND DUKE OF HESSE, perianth creamy white, cup yellow. B.

INNOCENCE, perianth small sulphur white, cup yellow. B.

PRINCESS ALICE, perianth creamy white, cup orange. B.

S. A. *DE GRAAFF*, large bold yellow well-imbricated flowers changing to primrose, cup yellow. B.

TRIDYMUS, perianth and cup yellow; plant somewhat recumbent. B.

LEEDSII (*montanus* × *Pseudo-Narcissus*), flowers horizontal or drooping with a long slender tube, spreading or dog-eared pallid perianth, and pale yellow cup varying from canary-yellow to whitish, generally dying off white; it differs from *incomparabilis* in the paler hue of its cup. The group *Vincenti* has been partly included under *Leedsii*.

AMABILIS, perianth large, white, and spreading, cup long and conspicuous, changing from primrose to white. L.

ACIS, perianth white, elegant cup stained with orange, changing to white. B.

AGLAIA, perianth white, cup changing from stained orange to white. L.

ALEXIS, perianth white, elegant cup, changing from stained orange to white. B.

- ALBION (*delicata*), perianth large starry white, cup canary. L.
- ALADDIN, perianth white, cup lemon.
- ATOMY, perianth white, cup lemon. L.
- ARIADNE, perianth white, cup changing from stained orange to white. L.
- ARSINÖE (*gloriosus minor*), perianth white, cup canary, medium sized flower. L.
- BEATRICE, perianth white, fine form, cup remarkably elegant, changing from lemon to white. Of the white hybrids this is the purest, and possesses the highest type of beauty. B.
- CERES, perianth white, neat, small, cup edged with orange. B.
- CIRCE (*gloriosus*), perianth white, cup changing from canary to white. L.
- CYBELE, perianth white and drooping, cup changing from orange to primrose. L.
- DUCHESS OF BRABANT, perianth white, cup canary. B.
- DUCHESS OF WESTMINSTER, perianth large, white, cup long, canary, tinged orange when first expanding; very distinct. B.
- ELEGANS, perianth white, large and drooping, somewhat shouldered, cup long, primrose sometimes stained with apricot. L. (Figured in *Gardeners' Magazine of Botany*, iii. 169.)
- FANNY MASON (*Vincenti gloriosus*), perianth white, cup canary; medium sized flower. L.
- FAVOURITE, perianth white, cup canary; very distinct flower. L.
- FIDES, perianth white and of fine form, cup spreading, primrose changing to white. B.
- FLORA MACDONALD, perianth large, white, cup long, canary; very distinct. B.
- FLORA (*galanthiflorus*), perianth white, cup stained orange; the flowers on opening are drooping. L.
- GEM, perianth model formed, cup lemon passing to white; very distinct. B.
- GENII, very symmetrical, perianth white, cup silvery white; very distinct. B.
- GRAND DUKE, perianth white, cup fawn colour. B.
- GRAND DUCHESS, perianth starry white, cup spreading, changing from stained orange to white. B.
- HON. MRS. BARTON, perianth large, broad, white, cup changing from primrose to white; a remarkable variety. B.
- HOMER, perianth white and stellated, cup primrose changing to white. B.
- IANTHE, perianth white, cup canary; medium sized flower. L.
- Io (*stellatus*), perianth starry white, cup changing from primrose to white. L.
- JUNO (*galanthiflorus major*), perianth white and slightly drooping, cup changing from primrose to white. L.
- KATHERINE SPURRELL, perianth broad, overlapping, white, cup canary; large flower, very distinct. L.
- LEDA (*galanthiflorus stellatus*), perianth white, starry, cup canary changing to white. L.
- LEEDSII, perianth white and somewhat starry, cup lemon changing to white. L.
- MADGE MATTHEW, perianth large, white, cup elegant, changing from canary to primrose. B.
- MRS. LANGTRY, perianth broad, white, cup large, white; very distinct. B.
- MIGNONNE, perianth pure white, stellated, cup canary. B.
- MAUDE, perianth small, neat, white, cup tinged with orange; foliage drooping. B.
- MINNIE HUME, perianth large, white, cup large spreading, changing from canary to white; a remarkable variety. B.
- MARIA MAGDALINE DE GRAAFF, perianth white, cup suffused orange; usually 2-flowered; remarkably distinct both in flower and foliage, the latter being broad and drooping. B.
- MODESTY, perianth white, drooping and well formed, cup lemon; a very distinct variety. B.
- MRS. BARCLAY, perianth small white, neat, cup large, canary changing to white. B.
- MADAME PATTI, perianth white, cup canary, neat. B.
- ODDITY, perianth and cup silvery white. B.
- PURITY, perianth and cup silver white. B.
- PRINCESS OF WALES, perianth small, neat, white, cup large spreading, opening canary and changing to white; a gem. B.
- PALMERSTON, perianth white, cup canary. B.
- QUEEN OF ENGLAND, perianth large, white with large expanded canary cup; after the style of Minnie Hume. B.
- SUPERBUS, perianth large white dog-eared, cup changing from primrose to white. L.
- SILVER KING, perianth white, cup canary, neat flower. L.
- VENUS (*galanthiflorus minor*), perianth white, cup changing from tinged orange to white. L.
- BARRII (*poeticus* × *Pseudo-Narcissus*), usually dwarf and slender in habit; flowers horizontal, with long slender neck or tube, and spreading segments twice or more the length of the short expanded cup. (See *Burbridge's Narcissi*, t. 22, as illustrating the main features of the group.) The group *Vincenti* has been partly included in *Barrii*.
- BARRII, perianth and cup yellow, changing to primrose. B.
- CONSPICUUS, large broad spreading perianth changing from yellow to sulphur, broad short cup, conspicuously stained orange-scarlet, very remarkable flower. B.
- CONSPICUUS MINOR, perianth primrose changing to sulphur, cup yellow edged orange. B.
- DISTINCTION, perianth primrose, fine form, cup yellow. B.
- DWARF GOLDEN MARY (*incomparabilis nanus*), perianth yellow changing to primrose, cup yellow. L.
- GOLDEN GEM, perianth rich full yellow changing to primrose, cup yellow edged orange. B.
- LASS O' GOWRIE (*stellatus*), perianth sulphury, starry, cup yellow. B.
- MAJOR, perianth sulphur, cup yellow. L.
- TALL GOLDEN MARY (*incomparabilis nanus*), perianth yellow changing to primrose, cup yellow. L.
- B. SULPHUREUS, perianth primrose, cup yellow. B.
- AMY (*sulphureus stellatus*), perianth whitish, cup yellow. B.
- HERBERT VON BISMARCK, perianth sulphury white, cup yellow; very neat and distinct. Leichtlin.
- IMOGEN, perianth sulphur, cup yellow. B.
- MILTON, perianth sulphur, cup yellow. B.
- PRINCE BISMARCK, perianth sulphur-white, distinct, cup yellow, spreading. Leichtlin.
- B. ALBIDUS, perianth sulphur-white, cup yellow. L.
- ADA, perianth sulphury white, cup yellow. B.
- BEATRICE MURRAY, perianth creamy-white, cup canary elegantly edged with orange; very distinct. B.
- CINDERELLA (*albidus aurantius*), perianth white, cup sulphur tinged with orange; very neat. B.
- ECCLES, perianth sulphur-white, cup tinged orange. B.

- GAZELLE, perianth creamy white, cup canary tinged with orange. B.
- GENERAL MURRAY, perianth broad, creamy white, cup canary elegantly edged with orange; very distinct. B.
- HOTSPUR, perianth primrose, small, cup yellow tinged with orange.
- JEWEL, perianth sulphury, cup small, yellow. B.
- JOHN STEVENSON, perianth sulphury white, cup large, spreading, yellow. L.
- LIZ, perianth sulphur, cup yellow stained with orange.
- LUCY, perianth sulphur white, cup yellow, expanded, stained orange. B.
- MRS. HORACE DARWIN, perianth creamy white, cup canary edged with orange. B.
- MRS. MURRAY, perianth creamy white, cup canary, elegantly edged with orange-scarlet; foliage recumbent. B.
- MAURICE VILMORIN, perianth broad creamy white, cup lemon, conspicuously stained with orange-scarlet; very distinct. B.
- MIRIAM BARTON, perianth primrose, large canary cup. L.
- MODEL, perianth sulphury white, neat canary cup stained with orange. B.
- PICCIO, perianth creamy white and starry, cup yellow, stained with orange. B.
- ROMEO (primulinus), perianth creamy white, dog-eared, cup canary; very distinct. B.
- SYLVIA, perianth sulphur-white, cup yellow. B.
- VIVIAN (albidus expansus), perianth twisted, sulphur, cup yellow. B.
- B. ALBUS, perianth pure white, cup yellow. L. A.
- AMORE, perianth white, cup lemon tinged with orange; very distinct. B.
- DESDEMONA, perianth white, expanded cup yellow. B.
- DOROTHY E. WEMYSS, perianth large pure white, the expanded cup canary conspicuously edged with orange scarlet. B.
- FLORA WILSON, perianth large pure white, cup canary strongly edged with scarlet. B.
- GOLDEN STAR, perianth white, cup stained with orange. B.
- GRACE DARLING, perianth white, of good form, cup canary edged with orange. B.
- LILLIPUT, perianth creamy white, cup yellow tinged with orange. B.
- LADY GRAY, perianth pure white, neat yellow cup. B.
- S. A. DE GRAAFF, fine formed white perianth, cup spreading and stained with orange scarlet. B.
- SENSATION (albus Beauty), perianth pure white, large, cup canary conspicuously edged with orange-scarlet; very striking flower. B.
- SILVER STAR (albus stellatus), perianth white, cup yellow. B.
- WILLIAM INGRAM (Milneri), perianth white, graceful, elegant primrose cup distinctly and conspicuously stained with orange-scarlet; very distinct. B.
- POCULIFORMIS (papyraceus \times moschatus), 1—2-flowered; flowers nodding, white, with a long slender cylindrical tube, and a straight-sided cup, about half as long as the spreading, twisted, somewhat floppy perianth.
- GALANTHIFLORUS, perianth and cup pure white.
- DR. MASTERS, perianth and cup silver white. Nelson.
- POCULIFORMIS (montanus), perianth and cup pure white.

(To be continued.)

MEDINILLA MAGNIFICA.

THIS plant when in flower is one of the most showy and effective of stove plants. It is moreover one not much troubled with insects, and grows freely in a stove temperature; in a mixture of loam, peat, and sand suits it admirably. Cuttings of the young wood root freely in pots filled with sandy peat plunged in a gentle bottom heat. The cuttings as soon as rooted, should be potted off singly, and plunged in bottom heat. As soon as they begin to fill the pots with roots, they should be shifted into others of larger size. They will take three or four shifts the first season, after that one or two shifts in the season will suffice, if the shifts be liberal. The plants should be trained into form, so as to make nice bushes.—M. SAUL, York.

VANDA TERES.

A NOVEL method of growing this reputedly shy-blooming plant is adopted by Mr. E. Hill, gardener to Sir Nathaniel de Rothschild, Bart., M.P., and as the test of time has proved by the annual profuse supply of bloom that the system is good, a short description of it will be useful to many who are each year disappointed by their own plants. In the front of a warm three-quarter-span house with sunny aspect, and similar in most respects to an ordinary melon or cucumber-house and having a gently heated water tank running along it, Mr. Hill has placed a good layer of charcoal over the tank, and on that planted out about two hundred pieces of *Vanda teres* in living sphagnum moss. The plants are kept always moist, and the full light of the sun is let in on them, and beyond this Mr. Hill does not think any special treatment necessary. When coming into bloom a month or two since, they presented a wonderful sight, each point being furnished with one or two flower spikes, each spike bearing several large wax-like, rose-coloured flowers.

The end certainly justifies the means employed to bring it about, and no care or trouble would be regretted by any who could secure such a display, or even a lesser one in proportion to the number of plants at their dis-



J L Macfarlane del.

Nectarine Oldenburg

posal. Their stock would soon increase, for so grown the plants are continually cut down, and the tops planted, the bottoms being left to make fresh flowering shoots. In the same house, but grown on teak blocks, and plunged in pots, Mr. Hill grows *Vanda Hookerii* like a weed, and flowers it freely.—JAMES O'BRIEN,
Harrow.

THE OLDENBURGH NECTARINE.

[PLATE 614.]

IHAVE had this splendid Nectarine at Combe for many years. For a long time we had the tree in our early peach-house, where it fruited rather sparingly; but a vacancy occurring in the second peach-house four or five years ago, we moved it there, where I am pleased to say it has regularly born large crops of fine fruit—of which the one represented in your figure was a fair specimen, and the latter is certainly not an exaggerated picture.

The fruit is altogether different in appearance from any other Nectarine. The side exposed to the sun or light is of a beautiful delicate light rosy colour, while the contrast of the shady side is very remarkable, being almost white. In my exhibits of collections of fruits years ago, I generally managed to introduce a dish of this variety, the bright clear complexion of which always contrasted favourably and effectively with dishes of Black Tartarian and Waterloo Cherries.

In some catalogues this Nectarine is described as a synonym of the Elrige. If this is the case, I am wrong with my Elrige, which with me is a very different fruit, and which I have many times exhibited in London unchallenged as to name. But I am inclined to think the Oldenburgh is quite a distinct fruit. My trees were had partly from the late Messrs. Osborn & Sons, and partly from Messrs. James Veitch & Sons, whose nomenclature was generally acknowledged to be very correct.

The tree is a strong grower, and might with advantage be introduced more freely into select collections.—WILLIAM MILLER, *Combe Abbey Gardens, June 10th, 1884.*

* * Mr. Thomas gives this as a distinct and first-class sort, well distinguished by its pallid colour.

DESCRIPTIONS OF THE BEST CARNATIONS.—VI.

NEXT we pass to that division of the Carnation family to which the designation of Picotees is applied—choice and charming flowers created by the florists—flowers in which the colour is displayed around the margin of the petals instead of in longitudinal stripes, those with a thin line of colour being known as *Light-edged*, and those with more massive pencillings *Heavy-edged*, an intermediate set being often distinguished as *Medium-edged*. We commence with the Red-edged varieties.

RED-EDGED PICOTEEES.

BRUNETTE (*Kirtland*).—Heavy-edged [distinguished in lists by the letter H.]; petals broad, smooth, and of good substance; white ground fair, densely edged with a broad band of deep mottled red. Habit of growth tetchy and capricious in autumn and spring, but a good summer doer. Showy and useful for the home stage, and for the exhibitor where long numbers are required, but lacks the refinement needed from my point of view to give it a high place amongst the “upper ten thousand” of Picotees.

CLARA (*Bower*).—Light-edged [L.R.]. A variety of beautiful form, and fair white ground as light-red Picotees go; it would take very high ground, but that the marking is slightly broken, being laid on like the links of a chain, rather than as a continuous wire. It is, however, very pretty, and well deserves the wide cultivation it has attained. First bloomed in 1872; presented by Mr. Bower to his friends; a fine grower.

COUNTESS OF WILTON (*Holland*).—Heavy-edged; a seedling from Mrs. Norman. First bloomed in 1858, it is yet a desirable variety, distinguished, as was its parent, for its fine quality and rich colours. Has been a fine grower, though now it shows palpable signs of the effects of age.

DR. ABERCROMBIE (*Fellowes*).—Heavy-edged. Raised at Shotesham Rectory, Norfolk, by the Rev. C. Fellowes. A neat, attractive, medium-sized flower, with a good white ground and plenty of well-formed petals, though more breadth would be a great advantage.

DR. EPPS (*Smith*).—Raised at Darlington, and distributed some twenty-two or twenty-three years since, this is one of the finest, most effective heavy red-edges yet in existence. But that the petal is somewhat too small, relatively to the finest Picotees we have, it would be an unbeatable flower, the colour being so broad and bright, the white ground pure, the size large, of great substance, and

perfectly smooth. Yet a good grower, though somewhat shy to root in the autumn.

EMILY (Addis).—Medium-edged. Raised in the neighbourhood of Wolverhampton by the late Mr. Addis, and sent to me as a purple-edge, which my friends in that neighbourhood assure me was the character of the flower first called Emily by the raiser, this proved a red-edge when flowered, and is now in general cultivation as such. It has a fine broad petal, bright attractive colour, and good white ground, and is a very desirable variety both for the home stage and exhibition, but being very early in bloom it is not shown so much as otherwise it would be. First bloomed about ten years since; a good grower.

ELSIE GRACE (Dodwell).—Light-edge. A seedling from Mary (Simonite), a light purple-edge, it may fairly be described in its best state as a red-edged Mary. First bloomed in 1879; sent out in 1881.

J. B. BRYANT (Ingram).—Heavy-edged; raised at Huntingdon. First bloomed in 1870; sent out in 1874. A variety of grand form, full size, and in a season warm and dry suitable for the development of a good white ground; exhibits a high degree of excellence. In dull wet seasons it is apt to become clouded, therefore it is well to mix a liberal supply of charcoal (of the size of a nut) in the compost for its growth. For shape and substance of petal and regularity of marking it cannot be surpassed; a good grower. Does best singly in 7- or 8-inch pots, and will carry three flowers on each plant.

JOHN SMITH (Bower).—Heavy-edged; raised at Horton Green, Bradford. First bloomed in 1862; sent out in 1864. A grand variety, undoubtedly in its best character the best heavy-red existing. Mr. Bower does not know its origin, as he kept no account of the seed. To see this variety with its broad edge of beautiful red, rich translucent white, fine form, and good size, as it is brought from the bracing air of the Yorkshire hills, especially by my friend Mr. Robert Lord, is to realise a picture of beauty never to fade from the mind's eye. But though like many other varieties of great excellence it is most at home in the bracing air of the north, it may be had in glorious beauty in the south. Mix charcoal freely with the compost, and especially see that the drainage is perfect, for nothing promotes disease in the Dianthus family so much as stagnant moisture and its correlative sour soil. A good grower. Grow singly in 7-inch, or two plants in an 8-inch pot. Will carry two, if strong, three flowers on the plant.

MASTER NORMAN (Norman).—Broad heavy-edged. One of the later productions of the late Mr. Nathaniel Norman, of Woolwich, which first came under my notice at Bradford in 1879. A seedling beyond doubt of the old King

James pedigree, though with how many removes it may be difficult to say. A full-sized, fine flower, with a well-formed broad petal, good white and very distinct broad marginal colour of cherry red. A good grower, but like all of the King James blood, shy to root in the autumn.

MISS SMALL (Fellowes).—“Another of the Shotesham varieties. Very distinct, having a good white, broadly margined with a cherry red. Petal good, smooth, and of fair substance. A good grower. First bloomed in 1870; sent out in 1873.” This was my description of 1877, and very soon thereafter it was dropped out of my collection, being unequal to the strain of the dry, vitiated atmosphere of my garden at Clapham. As an illustration, however, of the beneficial influence of the colder, bracing air of the north, it was produced at Manchester last season, in a condition to excite universal admiration, a fact that should be pregnant of suggestion to the thoughtful cultivator.

MORNA (Fellowes).—Another of the Shotesham varieties; in its best state I incline to think the finest certainly of Mr. Fellowes' red edges. But unhappily it is a very poor grower; and I fear even with the indulgence of fallowing every second year, it will not be possible long to preserve it for cultivation. Raised from Norfolk Beauty Heavy-edged P.P.

Mrs. BOWER (Bower).—Light-edged. A variety of the largest size, excellent form, good substance, and with a broad, well-marked petal; it wants only the rich white of John Smith to make it an unbeatable flower; wanting that, it falls into a secondary class, but still as a back-row flower from its fine growth and commanding size it is of great use both for the home stage and the exhibition, and it should never be forgotten that the effect of a red marginal colour, as contra-distinguished from a purple, is to impart a creamy hue to the white ground. First bloomed in 1872; sent out in 1874.

Mrs. DODWELL (Turner).—The oldest Picotee I now grow, and yet a most desirable sort. Sent out in 1854. Evidently a seedling from King James, but with a far better habit of growth. Has a large, finely-formed petal, with a rich distinct marginal colour, and fine white, and would be unbeatable had it the few more petals needed to give it perfect form. Nevertheless, and notwithstanding such a drawback, I think the variety infinitely superior to many larger and fuller flowers unquestionably, but whose centres are made up of narrow, ill-shaped petals, creating in the mind what to me is most offensive in association with a flower, the sense of confused tangled disorder.

Mrs. GORTON (Simonite).—Light-edged. A grand production of my friend and brother;

first shown, I believe, in 1876, when it was certified as first-class, and then for some seasons, such was the evil influence of the Sheffield air, it hung between life and death. Thanks, however, to the skill and care of another good friend and brother, Mr. Douglas, it was saved to floriculture, and sent out in 1882. It is undoubtedly a beautiful variety, having a fine petal, a distinct wire-edge of brilliant colour, a perfectly pure white ground, and good size. Whether as it gets into wider cultivation, it may master the beautiful variety of Mr. Flowdy's, Thomas William, remains to be determined, but it is beyond question that in the light-reds Mrs. Gorton and Thomas William are supreme.

MRS. WILSON (*Fellowes*).—Heavy-edged. A bright, full, distinct variety. Very attractive on the home stage, but has the bad habit of "saddling" its petals, and thus it is rarely seen of good form, and flowers with such a habit can rarely be improved whatever may be the skill of the manipulator. Such varieties are, however, frequently most effective for decorative purposes.

PEERESS (*Turner*).—Heavy-edged. Has the broadest edge of the class. A useful variety for the seedling raiser for its breadth of colour and good white; also for the home stage, but not likely to be used by the exhibitor, save where very long numbers are required. First bloomed in 1870; sent out in 1874.

PRINCESS OF WALES (*Fellowes*).—Heavy-edged. A very fine variety in its day—in the hands, that is, of most growers, though in the vitiated atmosphere of my garden at Clapham it was never equal to some others I have noted; but its day was short, and now for the past year or two from all sides I have heard of the difficulty of keeping it in life. First bloomed in 1870, sent out in 1873, it may be said to have accomplished the full life of a Picotee.

REV. F. D. HORNER (*Lord*).—Light-edged. Raised at Todmorden from self-fertilised seed of Mrs. Turner; light rose edge; first bloomed in 1871; sent out in 1873. This, though for the first year after it was in my possession was the finest light-edged red I had up to that time bloomed, speedily succumbed to the pernicious influences assailing it, and I was obliged to drop its cultivation. But upon the breezy hills of Yorkshire I hear it yet flourishes, and it was shown at Manchester last year in very finished style.

SARAH ELIZABETH (*Rudd*).—Light-edged. A seedling from Thomas William of the same class, but with, as bloomed by me, double the number of petals of that grand variety, and, what was worse, of a very inferior shape, the centre petals especially being narrow and angular at the margin—a fault in my eyes of the gravest character. The white ground is good, and the marginal colour very distinct.

THOMAS WILLIAM (*Flowdy*).—Light-edged. Raised at Newcastle-on-Tyne by Mr. Thomas Flowdy, and supposed, when Mr. Rudd gave me a description of it in 1877, to be of unknown parentage. But Mr. Flowdy has since informed me he took the seed from Lauretta (Smith), a beautiful variety some twenty-five years since. Mr. Rudd described it—Thomas William—as "a grand variety, the best light-edged red in my collection, and I am almost inclined to think the best I have seen." I can give hearty endorsement to these remarks. In its best state, indeed, Thomas William leaves little room for improvement. It has a fine broad petal, beautifully built up to the crown—a pure white ground and a bright distinct wire-edged marginal colour; is a good grower, and of good size.

WILLIAM SUMMERS (*Simonite*).—One of the earlier varieties of Mr. Simonite's, grown from seed taken from Lauretta (Smith), parent of the beautiful variety just described. Sent out in 1862. Like all Mr. Simonite's seedlings, William Summers exhibits high quality, fine substance, and has a broad, beautifully-proportioned petal. The colour, a medium feather-edge, is bright and attractive. A full-sized, well-formed, and well-crowned flower. A good grower, and though showing signs of diminishing stamina with increase of years, it still deserves and will well repay the additional attention it requires at the hand of the cultivator. Being somewhat late, it should have the protection of a frame, or a warm corner of the garden, to bring it in with the general bloom.

VIOLET DOUGLAS (*Simonite*).—Another of Mr. Simonite's beautiful productions. Light-edged. Petal, large, well formed, and margined with a very distinct wire of bright red. White ground good, and a good grower. Unlike William Summers, an early bloomer.

WINIFRED ESTHER (*Dodwell*).—Medium-edge. A seedling from William Summers, but with more colour than its parent. First bloomed in 1879; sent out in 1881.—E. S. DODWELL.

ROYAL NATIONAL TULIP SHOW.

THE Annual Exhibition of the Royal National Tulip Society took place this year, as usual, in the gardens of the Royal Manchester Botanical and Horticultural Society, on May 31, and formed part of the Great National Show held by that body during the season of Whitsuntide. The flowers, which were accommodated in one of the tents, were not so numerous as usual, but the blooms shown were on the whole high in quality, although most unequal in point of

age, some growers being unable to show anything but buds, whilst others were forced to bring old flowers that would scarcely hold together. The Southern and Midland bloom was almost over, and few blooms were shown that had grown south of Lancashire. Mr. J. Thurstan, Wolverhampton, was the only Midland grower who was able to bring anything of consequence. An innovation, which must have been a convenience to the exhibitors from a distance, is thus set forth in Rule 6 of the Prize Schedule:—"No stands will be required; all the flowers will be placed in the Botanical Society's bottles and staged in them. The so-called stands will be formed of flowers in the bottles grouped together." These bottles, which are the best we have seen for the display of single blooms, were designed by Mr. Barlow, and are figured and described at p. 115 of our volume for 1882.

The following are the principal details of the show:—

RECTIFIED TULIPS.

Class I. 12 dissimilar, 2 feathered and 2 flamed of each class.—1st, Rev. F. D. Horner, with Bizarres, feathered, Royal Sovereign and Garibaldi: flamed, Sir J. Paxton and Dr. Hardy; Roses, feathered, Industry and Heroine: flamed, Rose Celestial and Annie MacGregor; Byblœmens, feathered, May Queen and Mrs. Cooper: flamed, Talisman and Duchess of Sutherland. 2nd, Mr. James Thurstan, Wolverhampton, with Bizarres, feathered, Sulphur and Seedling: flamed, Sir J. Paxton and Dr. Hardy; Byblœmens, feathered, Adonis and Seedling: flamed, Talisman and Duchess of Sutherland; Roses, feathered, Mrs. Thurstan (a seedling raised by Mr. Thurstan—a masterpiece among feathered roses, being of a rich scarlet rose with finely pencilled feather on a white ground; this was awarded a 1st-class Certificate of Merit, which it thoroughly well deserved) and Heroine. 3rd, Mr. James Knowles, Ashton with good examples of Triomphe Royal, Madame St. Arnaud, Heroine, Bessie, Denman, Adonis, Lord Stanley, Charles X., Sir J. Paxton, &c. 4th, Mr. John Morris. 5th, Mr. D. Woolley, Stockport.

Class II. 6 dissimilar, one feathered and one flamed of each class.—1st, Mr. W. Kitchen, Stockport, with Bizarre, flamed, Sir J. Paxton: feathered, John Ratcliffe; Byblœmen, flamed, Adonis: feathered, Violette Aimable; Rose, flamed, Aglaia: feathered, Heroine. 2nd, Mr. John Knowles, with Bizarre, flamed, Sir J. Paxton: feathered, Sir J. Paxton; Byblœmen, flamed, Thalia: feathered, Bessie; Rose, flamed, Seedling: feathered, Seedling. 3rd, Mr. D. Woolley, Stockport, with Mabel, Adonis, Dr. Hardy, Sulphur, and Adonis. 4th, Mr. S. Barlow, with good but young examples of Modesty, Mrs. Lomax, Sir J. Paxton, Talisman, Martin's 101, and Sulphur. 5th, Mr. J. H. Wood, Royton. 6th, Mr. J. Morris. 7th, Mr. H. Travis, Royton. 8th, Mr. Thurstan.

Class III. 6 dissimilar, as in *Class II.*, but for half-guinea subscribers only.—1st, Mr. H. Housley, Stockport, with Bizarre, flamed, Sir J. Paxton:

feathered, Royal Sovereign; Byblœmen, flamed, Lord Denman: feathered, Violette Aimable; Rose, flamed, Annie MacGregor: feathered, Mabel. 2nd, Mr. Prescott, Bedford Leigh, with Bizarre, flamed, Pilot: feathered, Lord Lilford; Byblœmen, flamed, Van Andrum: feathered, Lord Brougham; Rose, flamed, Lord Byron: feathered, Heroine. 3rd, Mr. Schofield, Leeds. 4th, Mr. R. Woolfenden, Thorp.

Class IV. 3 feathered, 1 in each class.—1st, Mr. Housley with Bizarre, Masterpiece; Rose, Mabel; Byblœmen, Violette Aimable. 2nd, Mr. T. Baker, with Bizarre, Masterpiece; Rose, unnamed; and Byblœmen, Mrs. Pickerell. 3rd, Mr. J. Knowles, with Bizarre, Sir J. Paxton; Rose, Rachel; Byblœmen, Violette Aimable.

Class V. 3 flamed, 1 of each class.—1st, Mr. Housley, with Bizarre, Sir J. Paxton; Rose, Mabel; and Byblœmen, Lord Denman. 2nd, Mr. James Thurstan, with Bizarre, Sir J. Paxton; Rose, Mabel; and Byblœmen, Talisman. 3rd, Mr. J. Kitchen, with Bizarre, Dr. Hardy; Rose, Triomphe Royal; and Byblœmen, Talisman. 4th, Rev. F. D. Horner. 5th, Mr. D. Woolley. 6th, Mr. E. Schofield.

Class VI. 2 blooms, one feathered and one flamed, of any class (for maiden growers only).—1st, Mr. Prescott, with Bizarre, feathered, Lord Lilford; and Bizarre, flamed, Sir J. Paxton. 2nd, Mr. H. Fearnley, with Bizarre, flamed, Masterpiece; and Rose, feathered, unknown. Two prizes only were awarded.

Class VII. 2 blooms, one feathered and one flamed, of any class.—1st, Mr. H. Housley with Bizarres, Sir J. Paxton, flamed, and Masterpiece, feathered. 2nd, Mr. J. Morris with Bizarre, flamed, Dr. Hardy, and Rose, feathered, Heroine. 3rd, Mr. W. Dymock, Stockport, with Bizarre, flamed, Dr. Hardy, and Rose, feathered, Seedling. 4th, Mr. T. Baker. 5th, Mr. J. Knowles.

Class VIII. single blooms in each class—

Feathered Bizarres.—1st, Mr. T. Baker, with Lord Lilford; 2nd, with Masterpiece. 3rd, Mr. S. Barlow, with Sir J. Paxton. 4th, Mr. H. Housley, with Royal Sovereign. 5th, Mr. T. Baker, with Lord Lilford.

Feathered Roses.—1st, Mr. S. Barlow, with Heroine. 2nd, Mr. J. Morris, with Madame St. Arnaud; 3rd, with Mr. Lea. 4th, Mr. J. Knowles, with Heroine. 5th, Mr. H. Housley, with Mabel. 6th, Mr. J. Thurstan, with Annie MacGregor.

Feathered Byblœmens.—1st, Mr. T. Baker, with Perfection; 2nd, with Mrs. Pickerell. 3rd, Rev. F. D. Horner, with Beauty of Burton. 4th, Mr. J. Knowles, with Adonis. 5th, Mr. H. Housley, with Lady Denman.

Flamed Bizarres.—1st, Mr. W. Dymock, with Sir J. Paxton. 2nd, Mr. D. Woolley, with Sir J. Paxton. 3rd, Mr. T. Woolfenden, with an unnamed flower. 4th, Mr. Kitchen, with San Joe. 5th, Rev. F. D. Horner, with Polyphemus. 6th, Mr. Jas. Thurstan, with Dr. Hardy.

Flamed Roses.—1st, Mr. D. Woolley, with Mabel. 2nd, Mr. S. Barlow, with a Seedling. 3rd, Mr. D. Woolley, with Aglaia; 4th, with Olivia; and 5th, with Triomphe Royal. 6th, Mr. H. Housley, with Annie MacGregor.

Flamed Byblœmens.—1st, Mr. D. Woolley, with Lord Denman; 2nd, with the same; 3rd, with Chancellor; and 4th, with Norval. 5th, Mr. H. Travis, with Atlas. 6th, Mr. D. Woolley, with Norval.

Class IX. Best Feathered and Best Flamed blooms in the exhibition.—The premium Feathered Tulip in the show was Heroine, Rose, shown by Mr. S. Barlow, rather small in size, but clean, beautifully feathered, and perfect in all its parts. The premium Flamed Tulip was Sir J. Paxton, Bizarre, shown by the Rev.

F. D. Horner, a grand flower, very handsome and finely marked.

BREEDER TULIPS.

Class X. 6 dissimilar, two of each class.—1st, Rev. F. D. Horner, who had—Bizarres: Sir J. Paxton and William Lea. Byblœmens: Talisman and Ashmole's Seedling. Roses: Lady Grosvenor and Mr. Barlow. 2nd, Mr. J. Wood, with Mr. Barlow, Surpasse-le-Grand, Mahel, Sir J. Paxton, Alice Grey, and Ashmole's 112. 3rd, Mr. J. Kitchen. 4th, Mr. J. Thurstan. 5th, Mr. S. Barlow. 6th, Mr. J. Morris.

Class XI. 3 dissimilar, one of each class.—1st, Mr. Wood, with Annie McGregor, Alice Grey, and Sir J. Paxton. 2nd, Mr. Woolfenden, with Adonis, Mabel, and Sulphur. 3rd, Mr. Kitchen, with Sir J. Paxton, Hetty Barber, and Burlington. 4th, Mr. S. Barlow, with Criterion, Glory of Stakehill, and Annie McGregor. 5th, Mr. Thurstan. 6th, Mr. Woolfenden.

Class XII. Single Blooms in classes.—The best were as follows:—Bizarre breeders: Mr. S. Sharpley, with John Brook; 2nd, Mr. J. Woolfenden, with Excelsior; 3rd, Mr. S. Sharpley; 4th, Mr. S. Barlow. Rose breeders: 1st, Mr. W. Kitchen, with Mabel; 2nd, Mr. W. Kitchen, with Lady Grosvenor; 3rd, Mr. J. Wood; 4th, Mr. W. Prescott. Byblœmen breeders: 1st, Rev. F. D. Horner, with Ashmole's Seedling; 2nd, Mr. J. Morris; 3rd, Mr. J. Thurstan; 4th, Mr. J. Baker.

Class XIII. Best Breeder of any class.—The premier breeder Tulip was a fine orange Bizarre, Hepworth's 27A, shown by Mr. S. Barlow, clean yellow base, fine in colour, and perfect in form.

After the show the usual dinner was partaken of, and the usual business transacted. Then the following resolution was proposed by Mr. Thurstan: “That the members of the Royal National Tulip Society desire to express their deepest regret that the impaired health of their esteemed friend Samuel Barlow, Esq., compels him to retire from the positions of Honorary Treasurer and Secretary of their Society, which offices he has for such a lengthened period filled with so much satisfaction; and they sincerely hope that he will soon be restored to his usual health, and be enabled to officiate in his capacity of President for many years to come. The Society especially unanimously desires to offer, with these best wishes, their most cordial thanks to him for the services of Treasurer and Secretary, which he has so freely and faithfully given to the Royal National Tulip Society.” The resolution was carried unanimously. J. W. BENTLEY,

Hon. Sec., Royal National Tulip Society.

REGISTER OF NOVELTIES.

NEW FLOWERS.

BEGONIAS (TUBEROUS), DOUBLE-FLOWERED.—*General Gordon*, rich carmine-crimson, flowers large, full, and very double. *T. Hewett*, a fine variety with large and full brilliant crimson-scarlet flowers; 1st-class Certificates to both, R.B.S., May 21; J. Laing & Co. *Canary Bird*, with large and very pretty double flowers of a soft canary yellow, habit dwarf and sturdy; 1st-class Certificate R.H.S., June 10; J. Laing & Co. *Lucy Lemoine*, colour white, flowers large, and quite rosette-like; a fine addition to this section. *Madame Castaigney*, flowers purplish-rose, large and fully double, distinct and fine; 1st-class

Certificate to both the latter sorts, R.H.S., June 10; H. Cannell & Sons.

BEGONIAS (TUBEROUS), SINGLE-FLOWERED.—*Mrs. Weekes*, pure white, with a distinct margin of rosy-pink, large stout flowers of the finest form. *Her Majesty*, delicate blush flushed with rose-pink, large and handsome. *Distinction*, a beautiful variety with large crimson flowers, passing to white towards the centre. *Mr. A. Forbes*, vivid crimson, large and very fine. *Countess of Chesterfield*, carmine-crimson, very large, and of fine shape; 1st-class Certificate to each of the foregoing, R.B.S., May 21; J. Laing & Co.

CALADIUMS.—*Baron James de Rothschild*, leaves crimson, veined and pencilled with a deeper tint. *L'Aurore*, crimson, leaf broadly edged with yellowish-green. *Milraud*, leaves crimson, veined with red; 1st-class Certificate to each of the foregoing, R.B.S., May 21; J. Laing & Co.

CARNATION.—*W. P. Milner*, a pure white early flowering Clove Carnation; flowers large, pure in colour, of good form, and great breadth and substance of petal; excellent habit, and very free; 1st-class Certificate R.H.S., May 27; Veitch & Sons.

GAILLARDIAS.—The following new varieties are offered by Messrs. Kelway & Son, Langport:—*Abantis*, bronze; *Aristata*, yellow; *Babilis*, crimson, yellow edge; *Baton*, small yellow; *Bicolor*, yellow, copper centre; *Canthasis*, yellow; *Cleopatra*, gold colour, crimson centre; *Crocea*, lemon yellow, fine shape; *Democrates*, lemon yellow; *Demosthenes*, scarlet with a golden edge; *Electra*, yellow; *Ergias*, small crimson, yellow edge; *Eurytes*, lemon; *Faustus*, crimson, gold edge; *Gem*, scarlet, yellow edge; *Gluck*, yellow, crimson centre; *Gold Prince*, gold colour; *Goliath*, very large yellow; *Grandiflora*, red, yellow edge; *Icarius*, yellow, brick centre; *Leonidas*, crimson, edged yellow; *Magnifica*, large crimson, yellow edge; *Nestor*, crimson, yellow edge; *Paccius*, yellow, brown centre; *Pamphos*, yellow, brown centre; *Pandarus*, lemon-yellow; *Pelops*, crimson, yellow edge; *Perilla*, lemon yellow; *Procula*, yellow, red centre; *Quieta*, yellow, bronze centre; *Rhamnes*, orange, red centre; *Richardsoni*, yellow, brown centre; *Roscious*, orange, red centre; *Stellata*, yellow, red centre; *Speciosa*, yellow; *Tarsus*, yellow; *Thunis*, yellow; *Unea*, yellow, crimson centre; *Utica*, yellow, crimson centre; *Valentia*, yellow, bronze centre, some quilled petals; *Valeria*, yellow, quilled petals; *Velleda*, yellow, bronze centre; *Vestula*, quilled lemon yellow; *Waterloo*, crimson, yellow edge; *Xanthe*, gold, red centre.

GLOXINIAS.—*Beauty*, a charming erect-flowered variety, purple throat, edged with white, and profusely spotted. *George Amer*, crimson, edged with white and finely spotted; very large, fine shape and texture. *Mr. Coomber*, crimson, edged with white, and profusely spotted with carmine, very handsome; 1st-class Certificate R.B.S., May 21; J. Laing & Co. *Flambeau*, a very handsome erect-flowered variety of a brilliant carmine-scarlet colour; extra fine; J. Veitch & Sons.

KALMIA LATIFOLIA, major splendens, an old but scarce variety, differing from the type in having larger and deeper coloured flowers; the colour bright cherry-red in the bud state; paler when expanded; 1st-class Certificate R.H.S., June 10; R.B.S., June 18; Veitch & Sons.

MIMULUS MOSCHATUS, Cloth of Gold, a very dwarf growing variety of the musk, forming a dense carpet-like mass only two or three inches high, the mass of foliage studded with numerous large bright yellow flowers; very finely perfumed; 1st-class Certificate R.H.S., June 10; R. Dean.

PEONIES, Single Herbaceous.—The following varieties raised by Messrs. Kelway & Son are now being offered:—*Abianus*, creamy white; *Abrapolis*, pink; *Abolani*, purplish rose; *Abolus*,

rosy pink; *Abron*, salmon; *Acantha*, lilac-rose; *Acephali*, white, red centre; *Acidalia*, red, shaded purple; *Areos*, blush white; *Bacelus*, pink, yellow centre; *Baris*, crimson; *Cabades*, rich crimson; *Catulus*, purple; *Dorotheus*, soft lilac-purple; *Endymion*, sulphur; *Eugenius*, lilao; *Fundanus*, red; *Gabini*, blush; *Gabreta*, deep crimson; *Gorgias*, pink, tipped white; *Herculeus*, rosy pink, white centre; *Hyperbolus*, sulphur and white; *Italia*, purple red; *Jura*, white, margined rose; *Lælia*, rosy-white; *Larinus*, crimson-purple; *Laura*, sulphur; *Leander*, satiny-rose; *Leucadia*, rosy purple; *Levoni*, pure white; *Libon*, delicate pink; *Limnatis*, primrose; *Lucrinus*, crimson; *Mandonius*, purple; *Marcianus*, rosy peach; *Marcius*, bright red; *Mardonius*, crimson; *Margarita*, lilac; *Maria*, white; *Medon*, blush, white centre; *Melane*, satiny rose; *Melitea*, purple; *Nabis*, rosy purple; *Numitor*, crimson; *Orobis*, primrose; *Orthia*, white, margined rose; *Panteus*, rosy purple; *Pantheon*, salmon; *Pinetus*, deep red; *Prometheus*, rosy white; *Quietus*, red, shaded purple; *Quinlieus*, white, centre yellow; *Rabelais*, pink, yellow centre; *Rhetico*, rosy white; *Rusticus*, purplish crimson; *Rutila*, creamy white; *Saconi*, salmon; *Salii*, pink, tipped white; *Salon*, crimson; *Sameas*, red, shaded purple; *Tarsius*, rosy white; *Trophy*, purple; *Zelia*, rosy lilac.

PÆONIES, Double Herbaceous.—*Adelaide*, pure white; *Adonia*, rosy-purple; *Agatha*, blush, suffused pink; *Albini*, rosy pink; *Bacelus*, rosy-purple; *Bellona*, sulphur; *Cadme*, blush white, flaked crimson; *Camera*, lilac; *Caprus*, crimson; *Ceto*, red, shaded violet; *Dioscorum*, white, yellow centre; *Ecdorus*, crimson; *Euboles*, pale rose; *Frigidus*, rose and white; *Gabeni*, bright rose; *Glaucia*, blood red; *Gotha*, splendid crimson; *Hadranum*, satiny rose; *Herculeum*, rose and white; *Ilion*, pink, yellow centre; *Iope*, white petals, shaded rose; *Justina*, crimson; *Labolas*, rose, centre salmon; *Laceter*, sulphur; *Leona*, red, shaded purple; *Maccella*, pink, yellow centre; *Meletus*, rosy-white; *Nodinus*, lilac; *Nycletius*, white, base of petals primrose; *Oleus*, bright red; *Orobis*, dark purple; *Palene*, white; *Papius*, sulphur; *Papinus*, crimson-purple; *Quadi*, plum; *Quintilis*, satiny-rose; *Ruscino*, delicate pink; *Titus*, delicate blush; *Tomarus*, white, yellow centre; *Urion*, plum; *Vesulus*, rose.

PELARGONIUM (DECORATIVE).—*Harvester*, a very free-flowering variety, with large dense trusses of crimson flushed with black; very showy and distinct. *George Sheppard* (Jackson), also a fine decorative variety, very brilliant in colour, being of a vivid crimson scarlet, distinctly edged with white; good habit and large trusses of flowers; 1st-class Certificate R.B.S., May 21; H. Little.

PELARGONIUM (IVY-LEAF).—*Isidore Ferral*, a very fine variety, flowers very double and produced in large trusses; the colour is lovely soft pink; a very floriferous and strong growing variety; 1st-class Certificate R.H.S., May 27; W. Bealby.

PASSIFLORA.—*Constance Elliott*, said to be a white-flowered seedling from the common *P. coerulea*; similar in size, but the sepals as well as the fringe are pure white; 1st-class Certificate R.H.S., May 27.

ROSE (TEA-SCENTED).—*Souvenir de Thérèse Levet*, a variety with large full flowers of a rich rosy carmine colour; good habit, and very free; Paul & Son.

PYRETHRUMS (DOUBLE).—*Godiva*, silvery flesh, large, full, handsome. *Peach*, lovely in tint, fully double. *Shotover*, lively pink, large, full, and of fine form. *Virgo*, pale sulphur, a variety of fine form and substance. *Marquis of Salisbury*, cherry rose, large, and very fine; and *Niobe*, flesh-coloured, full, and fine shape; Kelway & Son.

PYRETHRUMS (SINGLE).—*Abacena*, cherry rose; *Acelum*, carmine; *Alexas*, French white; *Abbracca*,

lilao; *Almanzor*, crimson; *Amaryllis*, rose; *Argalia*, pink; *Atticus*, amaranth; *Bajardo*, rosy lilac; *Banquo*, purple; *Barkis*, flesh; *Bayard*, carmine; *Beauty of Buttermere*, flesh; *Belarius*, carmine rose; *Cerinthus*, purple red; *Charadrus*, white, tinged flesh; *Chios*, rose; *Danae*, crimson; *Devona*, pink, white ring; *Drinus*, rosy purple; *Epicomus*, cerise; *Eudora*, crimson; *Eurytele*, cherry red; *Evelthon*, rosy purple; *Favorinus*, carmine; *Florus*, white; *Gadara*, cherry; *Gargara*, carmine; *Gedrosi*, large rose; *Gemini*, amaranth; *Genusus*, brilliant crimson; *Hagnonia*, white, tinged rose; *Hippona*, crimson scarlet; *Horatius*, cherry; *Labyrinthus*, rosy purple; *Lapiceni*, rose; *Letrini*, pink; *Lycoris*, purple red; *Marcius*, crimson; *Marica*, white; *Menander*, purple crimson; *Muta*, flesh; *Nero*, crimson; *Ninus*, mottled rose and lilac; *Opheas*, brilliant crimson; *Onirus*, cherry rose; *Pacatula*, rose; *Padusa*, white; *Pasos*, carmine rose; *Panoti*, cerise; *Pantœus*, red; *Raphana*, amaranth; *Rubi*, maroon; *Rhodus*, cherry, white ring; *Sabatini*, lilac; *Sabus*, white; *Stella*, scarlet; *Theodosutus*, maroon; *Timon*, vermillion; *Urian*, rosy lilac; *Vesbola*, French white; *Veslatis*, bright pink; *Zama*, carmine; Kelway & Son.

NEW PUBLICATIONS.

THE GARDENERS' CHRONICLE (March 22—May 10) contains the following notes on novelties:—*Adiantum rhodophyllum*, Moore (p. 372), a charming new hybrid fern obtained between *A. Victoriae* and *A. tenerum*, its triangular tripinnate fronds remarkable for their bright rosy purple hue when first developed, and passing through shades of coppery red to the ordinary green of maturity; Veitch & Sons.—*Cattleya speciosissima regina*, Rchb. f. (p. 372), a splendid epiphyte of the labiate set, with rich purple flowers, having broad sepals, immense petals, and a dark mauve-purple lip with lateral yellow eye-spots, and a reddish ferruginous line between the light rosy side lobes; Sir T. Lawrence.—*Lachenalia tigrina* Ware, Baker (p. 372), a pretty Cape greenhouse bulb, with oblong-falcate green-spotted leaves, and racemes of tubular flowers upwards of an inch long, bright red at the base, bright yellow in the middle part, and green at the tips, the inner segments slightly protruding with a reddish-brown margin; T. S. Ware.—*Phalaenopsis Stuartiana Hrubiana*, Rchb. f. (p. 372), a fine variety, with the sepals and petals purple behind, and having a broad white well-defined edge of white to the petals; Baron Hrubby.—*Oncidium prætextum bellum*, Rchb. f. (p. 327), a fine stove epiphyte allied to *O. Forbesii* and *O. crispum*, with a handsome yellow lip marked with numerous brown spots at the base, and having an interrupted border of brown semi-lunar blotches; Dr. Wallace.—*Blechnum rugosum*, Moore (p. 408), a stove fern, probably a sport of garden origin; it somewhat resembles *B. occidentale* in size and form and cutting, having glandular-pubescent stipes, linear lanceolate pinnate glandular hairy fronds, which have a rough uneven rugged surface harsh to the touch; B. S. Williams.—*Doodia Harryana*, Moore (p. 408), a pretty little greenhouse evergreen dimorphous fern, allied to *D. caudata*, but of a stouter, firmer texture, and somewhat larger growth, and remarkably elegant in character; B. S. Williams.—*Masdevallia Mooreana*, Rchb. f. (p. 408), an interesting species near *M. elephanticeps* but one-third smaller the outside yellowish green, the lower lip rough inside chocolate brown, the upper sepal with a very long tail; the leaves are oblong-ligulate, petiolate; Glasnevin Botanic Garden.—*Odontoglossum ioplocon*, Rchb. f. (p. 445), an interesting species with the panicle inflorescence of *O. ramosissimum* to which it is allied; the sepals and petals are cuneate-lanceolate acuminate

undulate mauve-coloured, and the lip also mauve, linear-triangular in front and white-tipped, with two projecting angular lobes at the base, where there is some peculiar orange calli; W. Bull.—*Laelia anceps Leeana*, Hort. Sand. (p. 445), a small-flowered form with white narrow sepals and petals, the interior of the side lobes of the lip yellow with reddish oblique stripes; F. Sander.—*Dendrobium nobile Tollianum*, Rchb. f. (p. 445), a fine variety with pendulous stems; the petals have a pretty purple border, and spots and streaks of purple on the disk and at the base; the flowers show a tendency to become twisted; G. Toll; W. Lee.—*Calanthe proboscidea*, Rchb. f. (p. 476), a near ally of *C. furcata* with white flowers changing to light ochre, and very little smaller than those of that species; Sunda Islands; Veitch & Sons.—*Cypripedium porphyrochlamys*, Rchb. f. (p. 476), a new hybrid raised between *C. barbatum biflorum* and *C. hirsutissimum*; it has linear-ligulate leaves, and flowers with a blunt elliptic shining upper sepal reddish-purple with white borders, descending broad ligulate petals yellowish at the base, and freckles of pure mauve on their exterior half, the lip of a deeper colour than in *barbatum*; Veitch & Sons.—*Pinus karamana*, Masters (p. 481, fig. 91), a form of *P. Laricio*, cultivated under the name of *P. neglecta*; the branches are remote, the lower ones spreading, the upper ascending, all thicker and longer in proportion to the trunk than in *Laricio* itself; Karamania.—*Odontoglossum Shuttleworthii*, Hort. (p. 481), a very pretty hybrid of *O. crispum*, with the ground colour pure white, the sepals reddish-brown tipped with white, and the petals and lip white blotched and spotted with reddish brown, the lip having a bright yellow base; Shuttleworth & Co.—*Dendrobium profusum*, Rchb. f. (p. 510), an elegant species, with the general habit of *D. superbum*, but more slender, and bearing on the leafy or leafless stems slender peduncles of 7—9 flowers about as large as those of *D. amoenum*, with yellowish-green sepals purple at the base inside, and purple dots on the petals, the pandurate lip yellow with a dark spot in the middle; Philippine Islands; Consul Kienast.—*Aerides Robelinii*, Rchb. f. (p. 510), a fine species with the habit of *A. quinquevulnerum*, having erect species of whitish-green flowers tipped with white, the lip rosy, with yellow side lobes, and a short conical spur; Philippine Islands; Consul Kienast.—*Tulipa Grisebachiana*, Pant. (p. 542), a new Tulip from the Herzegovina, related to *T. sylvestris*, having three erect lorate glaucous leaves and bright lemon-yellow flowers with a green keel to the petals; M. Leichtlin.—*Saccolabium miniatum citrinum*, Rchb. f. (p. 542), a fine variety with dark stripes on the leaves, and lemon coloured flowers with a dark centre; Philippine Islands; Consul Kienast & Herr Röbelin.—*Nepenthes cincta*, Mast. (p. 576, fig. 110), a very distinct and handsome Pitner-plant with stout cylindrical stems, approximate leathery oblong-lanceolate glabrous leaves, which have two ribs on each side parallel with the margin, and slightly ventricose pitchers, 7—8 inches long, green flushed with red, and marked with numerous irregular purple blotches, the rim very oblique, lobed, finely ribbed, with a narrow whitish band around the top of the tube, and the wings deep and fringed with long sharp teeth; Borneo; Veitch & Sons.—*Laelia Crawshayana leucoptera*, Rchb. f. (p. 577), a lovely novelty, with fusiform or ovate stems, thick linear-lanceolate leaves, and blossoms like those of a small-flowered *L. autumnalis*, having light rosy sepals and petals, the lip with a fine mauve-purple middle lobe with sulphur keels to the disk and white side lobes; Borneo; Veitch & Sons.—*Primula dolomitis*, Baker (p. 577), a charming little plant of the Auricula

type, with 6—8 broad-oblong imbricated leathery leaves in a basal rosette, and a 2—3 inch scape bearing an umbel of bright lemon-yellow flowers; it comes from Panereggiò in the Tyrol; J. T. D. Llewelyn, Esq.—*Dendrobium nobile Schneiderianum*, Rchb. f. (p. 577), an interesting variety in which the flowers have a yellowish hue over the lip, and a dark mauve-purple mark at its base, the anterior part like the tail of a heath-cock; O. Schneider, Esq.—*Vriesia hieroglyphica*, E. Morr. (p. 577, fig. 111), a fine Brazilian Bromeliad with handsomely marked leaves growing in a spreading tuft, oblong acute, channelled, yellowish-green marked by irregularly sinuous transverse broadish deep green bars; Compagnie Continentale.—*Odontoglossum Schillerianum*, Rchb. f. (p. 577), a fine species forming a connecting link between *O. nævium* and *O. lutco-purpureum*. The flowers have cuneate-oblong acute sepals and petals, the lateral sepals directed downwards, all yellow blotched with brown in small or large patches, the lip with an oblong acute undulated velvety blade, yellow in front, white at the base, where there are upright side lobes, and two strong blunt calli on the disk; Sander & Co.—*Masdevallia anchorifera*, Rchb. f. (p. 577), a pretty species allied to *M. ochthodes*, with racemes of numerous distichous flowers, which are purple with ochre-coloured borders and purple spots; the petals and lip orange; the lateral sepals have the tails curved backward, suggesting the flukes of an anchor; Costa Rica; Sander & Co.—*Dendrobium cruentum*, Rchb. f. (p. 604), a species allied to *D. tridentiforme* with slender roundish furrowed stems, having nigro-hirsute sheaths, oblong obtuse bilobed leaves, and white flowers, with a strongly marked cinnabar callus, and three similar cinnabar ascending lines, with two interposed small teeth from the base to the middle of the column; Sander & Co.—*Dendrobium purpureum Moseleyi*, Hemsley (p. 604), a singularly distinct Dendrobium, having dense clusters of white flowers tipped with green; Aru Islands; Kew.—*Olearia macrodonta*, Baker (p. 604), a New Zealand shrub which has hitherto been confounded with *O. dentata*, but has smaller and less showy flower-heads; Veitch & Sons.

The BOTANICAL MAGAZINE (April—May) contains the following illustrations:—*Torenia Fournieri*, Lind. [t. 6747], a handsome plant from Cochinchina suitable for warm greenhouses and plant stoves; the flowers are lilac and pale violet in the way of *T. asiatica*, but differing wholly in having a terminal and racemose inflorescence; Kew.—*Oxalis articulata*, Savigny [t. 6748], a stout, fleshy-stemmed dwarf plant, with trifoliate hairy stalked leaves and umbels of pale lilac sweet-scented flowers; S. Brazil; Kew.—*Coffea travancorensis*, Wight & Arn. [t. 6749], a S. Indian shrub, with slender branches, broadly ovate or lanceolate leaves, and sweet-scented white flowers having a long slender tube and five-lobed spreading limb; Kew.—*Acanthomintha ilicifolia*, A. Gray [t. 6750], a dwarf annual herb of the Labiate order, with small ovate stalked leaves, and small lilac-purple flowers with a yellow palate, set between opposite roundish spiny-toothed bracts; Lower California; Kew.—*Labichea lanceolata*, Benth. [t. 6751], an Australian shrub allied to Cassia, with usually trifoliate sometimes simple leaves, and golden yellow flowers with four petals, one of which has two small crimson spots near the base. Of these Australian plants the editor remarks, few remain in our collections, the rest having been "for the most part watered to death, having been treated like Geraniums and other greenhouse stuff"; S. W. Australia; Kew.—*Leiophyllum buxifolium*, Elliott [t. 6752], a pretty little dwarf shining-leaved American shrub known in the United States as the Sand Myrtle; its small leathery leaves are ovate blunt, and its pretty pink blossoms in numerous little

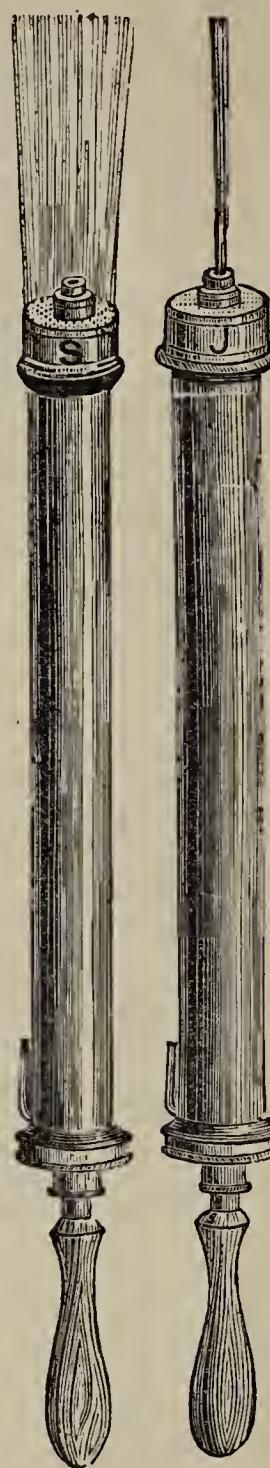
terminal corymbs; North America.—*Abies religiosa*, Schlecht. [t. 6753], a handsome tall-growing evergreen Silver Fir; it is unfortunately tender, and will succeed only in Ireland or the Western Counties; Mexico; A. H. Smith Barry, Esq.—*Tulipa Kesselringii*, Regel. [t. 6754], a pretty hardy bulb, with lorate lanceolate leaves, and smallish yellow flowers which are green margined with red on the back; Turkestan; Kew.—*Sagittaria montevidensis*, Cham. et Schl. [t. 6755], a most beautiful tropical water plant, with a tuberous rootstock, hastate leaves, and panicles of white flowers having at the base of each of the three petals an ovate rich brown spot bordered with yellow; Buenos Ayres; Kew.—*Solanum Meaglia*, Schlech. [t. 6756], one of the forms of the wild potato, which it is now proposed to call Darwin's Potato; it comes from Chili, and has pinnate leaves and white flowers; Kew.—*Tillandsia streptophylla*, Schwend. [t. 6757], a curious Mexican Bromeliad, with a rosulate tuft of spirally-contorted albo-lepidote leaves, the upper central ones pinkish, and the flowers bright lilac with green bracts; Kew.

L'ILLUSTRATION HORTICOLE (3—5 liv.) contains *Vriesia hieroglyphica*, E. Mor. [t. 514], a beautiful Brazilian Bromeliad, forming a large rosulate tuft of loriform recurved leaves which are of a yellowish green, with irregular transverse bands of dark green above, and of purplish brown beneath; Compagnie Continentale.—*Dahlia coccinea Paragon* [t. 515], which appears to be neither *D. coccinea* nor *Paragon*, the figure representing a variety of the *D. variabilis*, and the colours not being those of *Paragon* maroon and purple, but maroon and crimson.—*Begonia Countess Louise Erdody* [t. 516], a handsome variety with silvery leaves tinted with green and red, the base irregularly cordiform, with the smaller lobe spiral and raised above the larger one.—*Saccolabium giganteum illustrum*, Rchb. f. [t. 517], a very fine variety in which the flowers are larger and more closely set on the spike, while the purple spotting is more decided, and the lip is of a deeper richer purple; it is a very fine thing.—*Leea amabilis splendens*, Lind. [t. 518], a variety in which the white striped leaves are prettily and freely variegated with bright cinnabar red; Borneo; Compagnie Continentale.—*Impatiens flaccida albiflora*, Rodigas [t. 519], a white flowered flat-petalled Balsam from Ceylon; Compagnie Continentale.—*Schismatoglottis pulchra*, N. E. Br. [t. 520], a dwarf stove Arad, of caespitose habit, in which the oblong acuminate unequally cordate leaves are of a glaucous green thickly spotted with small silvery blotches; Borneo; Compagnie Continentale.—*Panax Victoriae*, Hort. [t. 521], an erect growing stove plant, with trilobed or pinnaefid leaves, having the leaflets irregularly toothed, and more or less deeply bordered with white.—*Gymnogramma schizophylla gloriosa*, Rodigas [t. 522], a splendid variety of a wonderfully graceful fern, having the lax finely divided proliferous habit of *G. schizophylla*, but with a degree of vigour superadded which makes it truly glorious; obtained by Mr. Maron, Chateau de Herbault; Compagnie Continentale de Horticulture.

JOURNAL DES ROSES (April—May) contains portraits of the old Félicité Perpétue Rose, a variety of *R. sempervirens* with white flowers; and Rose *Triomphe de l'Exposition*, a flat or expanded crimson rose obtained by M. Margottin, and sent out in 1855.

L'HORTICULTURE BELGE (April—May) gives illustrations of *Daphne Genkwa*, Sieb. et Zucc., a handsome early-flowering shrub, which is the same as the *Daphne Fortunei* of Lindley; and two fine varieties of *Lycaste Skinneri*, one with white flowers the other with the lip crimson and highly coloured.

GARDEN GOSSIP.



— MESSRS. SHEATH BROTHERS invite our attention to their PATENT MAGIC SYRINGE, of which a figure is annexed. Its advantage is, that without having to detach and screw on a separate rose to produce a jet or a shower of water, it is all done by twisting the syringe itself, so that the nuisance of having to use detached roses is done away with. The change is effected instantaneously. There are two chambers in the rose part of the instrument, one for the single jet, the other for the shower, each being provided with a seat for the ball valve, and connected by a channel through which the ball runs. When the ball is on the single jet seat the jet outlet is stopped and the shower is thrown, and when the ball is on the shower seat the shower outlet is stopped, and the single jet is thrown. The change of action is momentary; thus with one charge of water a shower or jet may be thrown alternately for nine different times. The letters S and J marked on the syringe indicate the point to which it must be turned to produce the shower and jet respectively.

— ONE of the grandest sights of the season is the EXHIBITION OF ORCHIDS in Mr. Bull's nursery at Chelsea, which has been described as "a scene of orchidic beauty baffling description, and we had almost said defying exaggeration. In truth it is a marvellous display for any nurseryman to create single-handed, and speaks volumes for the resources of the establishment." It occupies a long span-roofed house, with a broad central stage topped by Palms and other foliage plants, and two side stages with a setting of Maidenhair and other ferns, all crowded with Orchids of the choicest and rarest types including many novelties. In many cases groups of varieties of the same species are brought together with excellent effect. At one time, there were of *Odontoglossums* alone 1,160 spikes of bloom, and of *Cattleya Mendelii* 112 blooms. *Odontoglossum Alexandrae* alone affords many choice groups of widely differing forms, and are truly a splendid lot, every variety being a gem in its way. The genus *Cattleya* includes *C. labiata brilliantissima*, a new variety, with the markings of Backhousiana on the petals, and the labellum of the richest crimson-maroon, with yellow blotches on the side lobes. We note also the new *L. Schilleriana Mastersii*, white with purple lip, and the side lobes fringed with the purple, and many others.



RHODODENDRON CURTISII.

[PLATE 615.]

IN this distinct and highly characteristic novelty we have one of the best and most useful of recent importations. Mr. Fitch has faithfully pourtrayed its lineaments in the accompanying figure, for the opportunity of publishing which we are indebted to the introducers, Messrs. James Veitch & Sons, of Chelsea, who may be congratulated on the possession of so choice a gem, and one likely to be so generally useful. Messrs. Veitch have kindly sent us the following particulars respecting the introduction of the plant:—

“ RHODODENDRON CURTISII was discovered by the collector whose name it bears a little more than three years ago, on the mountains of Sumatra, at an elevation of about 2,000 feet, but it was not successfully introduced till two years afterwards. It is a handsome, branching, bushy plant, well furnished with a rather dense foliage of linear lanceolate bright green leaves, forming a fine specimen, suitable both for the exhibition table, and for decorative purposes on the home stage.

“ The plant is of free growth, and exceedingly floriferous, every shoot terminating in a truss of from four to seven brilliant scarlet-crimson flowers, which are produced continuously for several consecutive months. Its cultural treatment is the same as that of the *javanico-jasminiflorum* hybrids, from all of which, however, it is perfectly distinct, especially in its dwarfer habit and smaller foliage.

“ We consider this Rhododendron one of the most useful for the intermediate house ever introduced. It received the award of a 1st-class Certificate from the Floral Committee of the Royal Horticultural Society on November 13, 1883.”

The hybrid evergreen greenhouse Rhododendrons for which we have to thank Messrs. Veitch, and of which there is now so great a variety, prove to be a most valuable set of decorative plants, and will be more and more widely grown the more widely they are known, there being something irresistibly charming about them, with their fine heads of waxy flower tubes. Dwarfer and more compact in habit than those, and smaller flowered but equally brilliant with the brightest of the series, this new Sumatran species will, we cannot

doubt, meet with an equal, if not indeed with a more complete amount of popular favour.—
T. MOORE.

DESCRIPTIVE LIST OF NARCISSI.

(Concluded from p. 104.)

PARVICORONATI.

GRACILIS (*juncifolia* × *Tazetta*), rush-leaved, 1—3 and sometimes even 5-flowered; flowers horizontal, with long slender tubes, spreading perianth, and shallow cup, all the parts being yellow; an elegant plant, and late flowering.

TENUIOR (the slender straw-coloured), perianth sulphury white, cup yellow; a graceful plant.

***PLANICORONA** (the slender flat-crowned); Haworth, Herbert, and Rev. H. Ellacombe were acquainted with this plant, and it may still be in Mr. Ellacombe's collection. Parkinson observes of this, under the name *Narcissus minimus juncifolius flore* (the least Daffodil of all): “ This least Daffodill hath two or three whitish green leaves, not above two or three inches long, the stalk likewise is not above three or four inches high bearing one single flower at the toppe, somewhat bigger than the smalnesse of the plant should seeme to beare, very like unto the least Rush Daffodill, and of the same bignesse, or rather somewhat bigger, being of a faint yellow colour, both leaves, and cup, or crowne (if you please so to call it); for the middle part is spread very much, even to the middle of the leaves almost, and lyeth flat open upon the flower; the roote is small, even the smallest of any Daffodill, and covered with a blackish skinne or coate.” The root, he adds, was brought to him, “ by a Frenchman called Francis le Veau, the honestest roote-gatherer that ever came over to us.” —*Paradisus*, p. 88.

BURBIDGEI (*poeticus* × *Pseudo-Narcissus*), habit of *Poeticus*; flowers horizontal, mostly white, with long slender tube, and usually with a shallow spreading cup, which is frequently stained on the rim more or less distinctly with orange-red; they commence flowering before the earliest *Poeticus*, and the different varieties continue the succession to the latest *Poeticus*.

ARABELLA, perianth small yellow passing to primrose, cup yellow edged with orange. B.

ALICE BARR, perianth delicate primrose, cup yellow, stained with orange, elegantly frilled and spreading. B.

AGNES BARR (*delicatus*), perianth creamy white, cup yellow. B.

AMORET, perianth large and pure white, cup citron.

ARIEL (*albidus*), perianth sulphur-white, cup canary tinged with orange. L.

AUNT JANE, perianth white, cup large spreading and tinged with orange. B.

BARONESS HEATH, perianth primrose changing to white, cup suffused with orange, drooping, strong foliage, very distinct. B.

BEATRICE HESELTINE, perianth creamy white passing to pure white, cup conspicuously edged with orange scarlet as in *conspicuus*. B.

BEAUTY, perianth clear yellow, fine form, cup tinged with orange. B.

Boz (*luteus*), perianth yellow, cup citron, and plaited. B.

BLANCHE, perianth broad, white, dog-eared cup primrose, foliage flaccid. B.

BURBIDGEI, perianth clear white, cup margined with cinnabar-red, very early. L.
 CONSPICUUS, perianth sulphur white changing to white, cup expanded and conspicuously edged with orange scarlet. B.
 COWSLIP (primulinus), perianth primrose, cup cinnabar red. B.
 CROWN PRINCE, perianth broad creamy white, cup canary margined with orange, strong erect foliage. B.
 CROWN PRINCESS, perianth white, cup canary margined with orange, strong drooping foliage, very distinct. B.
 DANDY (stellatus), perianth white, cup yellow, plaited. L.
 EDITH BELL, perianth alabaster white changing to pure white, cup canary margined with orange; very distinct. B.
 ELLEN BARR, perianth white, cup primrose edged with scarlet. B.
 EMPRESS EUGÉNIE, perianth creamy white, cup yellow, very neat. B.
 ELEGANS, perianth white, cup expanded and margined with saffron, very distinct. B.
 ETHEL, perianth primrose, cup yellow.
 GRACILIS, perianth sulphur-white, cup spreading, plaited and tinged with orange. B.
 GUINEVER, perianth white compact, cup canary frilled. B.
 JOHANNA, perianth white, cup spreading and stained with orange. B.
 JOHN BAIN (grandiflorus), perianth large white, cup citron. B.
 JENNY DEANS, perianth sulphur-white changing to white, cup yellow edged with orange. B.
 JOE, perianth creamy white, cup edged with orange. B.
 LITTLE DIRK, perianth short, compact, neat, passing from yellow to a creamy white, cup conspicuously edged with orange-scarlet; the smallest of the Burbidgei group. B.
 LOTTIE SIMMONS, perianth sulphur white, cup canary edged with orange. B.
 LITTLE JOHN (minor), perianth compact, creamy white passing to white, cup small yellow, plaited. B.
 LOVELY, perianth white, cup lemon, elegantly frilled. B.
 MARVEL, perianth white, broad, cup stained with orange and somewhat jagged. B.
 MARY (expansus), perianth white, cup expanded and suffused with orange. B.
 MAY (conspicuous minor), perianth white, cup edged with orange. L.
 MERCY FOSTER, perianth alabaster white, cup canary, very gracefully frilled.
 MODEL, perianth clear white and compact, cup frilled and stained with orange. B.
 MRS. KRELAGE, perianth primrose, cup yellow tinged with orange; very graceful. B.
 OSSIAN, perianth large, white, broad expanding yellow cup. L.
 PEARL, perianth white, cup spreading and suffused with orange. B.
 PRIMROSE STAR, perianth neat primrose, cup yellow. B.
 PRINCESS LOUISE, perianth white, sharply pointed, cup expanded and tinged orange. B.
 ROBIN HOOD (marginatus), perianth white, cup lemon stained with orange. B.
 ST. JOHN'S BEAUTY, perianth large, white, cup lemon tinged with orange. B.
 SULPHUR STAR (sulphureus stellatus), perianth sulphur-white, cup canary edged with orange. B.
 THOMAS MOORE ABSOLON (grandiflorus expansus),

perianth white, cup citron, elegantly expanded. B.
 THE PET, neat, small, clear white perianth, cup yellow, distinct. B.
 TOPSY, perianth broad, white, compact, cup margined with orange. B.
 VANESSA (perfectus), neat compact yellow perianth passing to primrose, cup yellow and expanded; a perfect flower. B.
 WALLACE, perianth white, cup primrose, very distinct. L.
 BIFLORUS (? poeticus × Tazetta).—Many amateurs are interested in the beautiful seedling hybrid Daffodils which have been raised during the last half-century, and as no positive knowledge exists as to the crosses, some cultivators are endeavouring to find this out by hybridising. Therefore any quotations made in connection with the present list are intended to elicit inquiry. The following note is from Herbert's *Amaryllidaceæ* (p. 317), and is here reproduced to test whether after the lapse of half a century the conditions are the same.
 "BIFLORUS STERILIS, *Bot. Mag.*, t. 197; two flowered, without pollen or ovules in our gardens, perhaps from having been raised by offsets three centuries or more, without renovation by seed. I see no reason to think it a hybrid production, for it does not exhibit appearances intermediate between those of any two narcissan genera or even species."
 "TRIFLORUS, 2—4-flowered, from the South of France; ovules perfect; flowers rather smaller, and the white clearer."
 "DIANTHUS, *Haworth*, unknown to me, but described as two-flowered, with a very plicate and darker yellow or orange cup."

MONSTROSITIES.

In dealing with this part of our list, every available source of information has been taken advantage of in order to afford the fullest possible particulars respecting the several plants, and quotations have been freely made, especially from the faithful Parkinson and in his quaint language.

MAGNICORONATI.

PSEUDO-NARCISSUS PLENUM (the English double Daffodil, or Gerard's double Daffodil). "Is assuredly first naturall of our owne countrey, for Mr. Gerrard first discovered it to the world, finding it in a poore woman's garden in the West parts of England, where it grew before the woman came to dwell there, and, as I have heard since, is naturall of the Isle of Wight . . . Sometimes the flower sheweth a close and round yellow trunke in the middle, separate from the pale outer wings, which trunke is very double, showing some pale leaves within it, dispersed among the yellow. And sometimes the trunke is more open, or in part broken, showing forth the same colours intermixed within it; the flower passing away without giving any seed." —*Parkinson*, p. 104.

TELAMONIUS PLENUM (Wilmer's great double Daffodil); "the stalk riseth to bee two foote high, growing (in a fruitfull and fat soyle) strong, and somewhat round, bearing at the toppe, out of a thin skinne, one great and fair double flower . . . diversly intermixed with a rowe of paler, and a rowe of deeper yellow leaves, wholly dispersed throughout the flower, the pale colour as well as the deeper yellow . . . Sometimes the leaves

hereof are scattered, and spread wholly, making it shew a faire, broad open flower; and sometimes the outer leaves stand separate from the middle trunke, which is whole and unbroken, and very thickc of leaves; and sometimes the middle trunke will be halfe broken . . . as it is likewise seene in the small English kinde . . . this beareth no seed."—*Parkinson*, p. 102. This Daffodil is common at Florence, from whence it may be supposed it was introduced into this country about the year 1620. The single form is to be found growing with it, but not abundantly. In England the small double native plant is scarce; whereas at Florence the large single native plant is scarce, and variable. Attention is particularly called to this variable character to account for differences in the double forms of this Daffodil; for example, there was this year exhibited at South Kensington, besides the long-trumpet double *Telamonius* in all its gradations, one with the trumpet shorter, thicker and lighter in colour, while the foliage was of a darker green. Was it Haworth's *Telamonius pleno pallidus acuminatus*?

PLENISSIMUS (John Tradescant's great Rose Daffodil). "This Prince of Daffodils belongeth primarily to John Tradescant, as the first founder thereof, that we know, and may well bee entitled the Glory of Daffodils." The stalk, almost as high as Wilmer's great Double Daffodil, "bearing at the toppe one faire large great flower (before it breake open, being shorter and thicker in the middle, and ending in a longer and sharper point than any of the other Daffodils) very much spread open . . . and double as any Provence Rose."—*Parkinson*, p. 102. This Daffodil is not much known, the one usually sold for it, viz., *lobularis grandipennis*, is dwarfer.

***PLENUS LACINIIS PALLIDIS** (the great Double Yellow Spanish Daffodil), the stalk almost as high as Wilmer's great double Daffodil, "bearing one double flower at the toppe, always spread open . . . the outermost leaves whereof being of a greenish colour at first, and afterwards more yellow, doe a little turn themselves back to the stalk . . . Those leaves that stand in the middle are smaller, and some of them show as if they were hollow trunked . . . I think none ever had this kind before my selfe, nor did I myself ever see it before the year 1618, for it is of mine own raising, and flowering first in my own garden."—*Parkinson*, p. 103.

***GALLICUS MAJOR FLORE-PLENO** (the great double French Daffodil). "The stalk riseth up not much higher than the smaller French kinde, but a little bigger, bearing at the top one great double flower, which when it is fully and perfectly blowne open (which is but seldome; for that it is very tender, the leaves being much thiner, and thereby continually subject, upon any little distemperature of the time, to cleave so fast one unto another, that the flower cannot blow open faire) is a faire and a goodly flower, larger by halfe than the smaller kinde, and fuller of leaves, of the same pale whitish yellow or lemon colour . . . not set in the same order of rows . . . but more confusedly together."—*Parkinson*, p. 103.

***LOBULARIS PLENUIS** (the common deep yellow double Daffodil) of Haworth. Can any one settle what this is? Haworth confuses

Lobularis and *Obvallaris*. He calls *Lobularis* the Tenby Daffodil, and *Obvallaris* the short-tubed spreading crown, referring it to the figure in the *Bot. Mag.*, t. 1381, which is the plant growing wild at Tenby. *Obvallaris* must therefore be accepted as the Tenby Daffodil, and *Lobularis*, as determined by the Daffodil Conference, a form of typical *Pseudo-Narcissus*.

The two following are comparatively dwarf growing, and are supposed to be the double of the plant *Lobularis*, ranged under *Pseudo-Narcissus*:

PSEUDO-NARCISSUS LOBULARIS PLENUS (the dwarf double light yellow).

GRANDIPLenus (the dwarf double light yellow). This flower spreads to a large size when fully open, and a fine specimen will show as many as 10 or 12 centres from which petals or organs radiate, thus having the appearance of 10 or 12 small Narcissi bound together.

NANUS PLENUS, said by Dr. Brown, of Hull, to have been raised by him from seed, one bulb only, the flower of which was sent by him to the Conference. One bulb also found amongst bulbs of Nanus from Lincolnshire by Mr. T. S. Ware. So far as is known these are the only two bulbs of this form.

CAPAX PLENUS (Queen Ann's double Daffodil), also called *eystettensis*. Haworth supposed it was the double of *Calathinus*, Herbert that it was the double of *Minor*. *Parkinson* places it with the trumpet section under the name *Pseudo-Narcissus gallicus minor flore-pleno*, but is doubtful, and remarks on it as follows: "The rootes of this lesser French kinde (if I may lawfully call it) . . . a bastard Daffodill. I somewhat doubt thereof, in that the flower . . . is not made after the fashion . . . of the other bastard Daffodills, but . . . resembles the form of the double white Daffodill. . . . bearing onc faire double flower . . . of a pale lemon colour, consisting of 6 rows of leaves, every row growing smaller than the other unto the middle, and so set and placed, that every leafe of the flower doth stand directly almost in all, one upon or before another into the middle, where the leaves are smallest, the outermost being the greatest."—*Parkinson*, p. 105.

CERNUUS FLORE ELEGANTISSIME PLENO (the double white trumpet Daffodil).

CERNUUS FLORE ELEGANTISSIME PLENO BICINCTUS (the double white trumpet Daffodil with the divisions of the perianth in duplicate).

MEDIICORONATI.

INCOMPARABILIS AURANTIUS PLENUS (Butter and Eggs). Of this there are at least two varieties differing in the colour of the flower, and the shade of green in the foliage. One appears to have come from a pure full yellow, the other from a sulphur yellow, and for observation it is suggested that the yellow more generally gives the full rose-like flower, and the sulphur the full cup of florets with the divisions of the perianth free as in the single. It is moreover suggested that from this latter the occasional single flowers come.

ALBUS PLENUS AURANTIUS (Eggs and Bacon, Orange Phoenix). Of this it has been said there are two varieties, to be distinguished by the greater or lesser brightness of the orange cup.

ALBUS PLENUM SULPHUREUS (Codlings and Cream, Sulphur Phoenix). The supposed single form of this is *Incomparabilis semipartitus*.

It is suggested that under certain conditions of culture the foregoing plants exhibit gradations of doubleness from the most perfect rose-like flower to a cup with a few florets, and when in this degenerate state many persons have been led to suppose the flower is making efforts to become double, whereas it is attempting to go single.

It is not uncommon for Butter and Eggs to become single, but it is a rare occurrence for either Eggs and Bacon or Codlings and Cream to do so.

ODORUS MINOR PLENUM (Queen Ann's Double Jonquil), flowers of a rich full yellow, not unlike a small yellow rose.

PARVICORONATI.

JONQUILLA PLENUM (Double Yellow Jonquil), flowers of a rich full yellow; a small, elegant, richly-scented flower.

TAZETTA ROMANUS (the Double Roman Narcissus), double white with orange cup. This is much grown for early forcing. The individual pips are mounted by the bouquetists, and used in button-hole bouquets, &c.

TAZETTA NOBILISSIMUS, double white with yellow cup. This variety is cultivated by the Dutch.

In addition to the foregoing double Tazettas, Parkinson describes four, and it is quite possible the two above-named may be included among them. As the work cited is not easily accessible, they are recorded in this list, with as much of Parkinson's descriptions as is necessary to assist in their identification.

***NARCISSUS MEDIO-LUTEUS CORONA DUPLICI . . .** the stalk "bearing at the toppe foure or five flowers . . . but not altogether a pure white colour. . . . The yellow cup in the middle of this is thicke and double, or as it were crumpled together, not standing very high to be conspicuous . . . so that it is not presently marked, unless one looke upon it precisely."—Parkinson, p. 84. Haworth's *Tazetta Cypri semiplena*.

***NARCISSUS CHALCEDONICUS FLORE-PLENO ALBO POLYANTHOS**, the stalk "bearing foure or five or more white flowers at the toppe . . . large and double, the leaves being confusedly set together, having little pieces of a yellow cup running among them."—Parkinson, p. 84. Haworth's *Tazetta Cypri plena*.

***NARCISSUS CHALCEDONICUS FIMBRIATUS MULTIPLEX POLYANTHOS**. "This Daffodil differeth very little . . . from the former . . . and bear many upon a stalke, like unto them, yet this hath the pieces of the yellow cuppes tipt with purple, as if they were shred or scattered among the white leaves."—Parkinson, p. 84.

***NARCISSUS CYPRIUS FLORE-PLENO LUTEO POLYANTHOS**, ". . . the stalk is a foote high and more, bearing foure or five flowers on the top . . . of a fine pale yellow colour."—Parkinson, p. 86. Haworth's *Tazetta deflexicaulis plenus*.

"The first of these Daffodils was first brought into England by Mr. John de Franqueville the elder, who gathered it in his owne countrey of Cambray, where it groweth wild. . . . The rest have come from Constantinople at severall times; and the last is thought to come from Cyprus. We have it

credibly affirmed also that it groweth in Barbary about Fez and Argiers."—Parkinson, p. 86.

POETICUS PATELLARIS PLENO ALBO CUM CROCEO.

This is the double Poeticus, or large Gardenia-flowered double white Daffodil, to be found in most gardens; and as the doubling and singling of this flower is at present being discussed, extracts have been freely made from Parkinson, as without doubt there are varieties of double Poeticus. The small Gardenia-flowered double white Daffodil comes from the small-flowered Poeticus of Linnaeus. Now, as Parkinson made a very careful study of the individual characteristics of all his Daffodils, something may be learned from his observations; at least attention is drawn to the subject, and as many minds are being directed to the question good results may be brought out.

NARCISSUS MEDIO-PURPUREUS MULTIPLEX (the double Purple Ring Daffodil). "There is little difference in the leaves of this kind from the leaves of the single purple-ringed Daffodil; for it is probable it is of the same kinde, but by nature's gift (and not by any human art) made more plentiful, which abideth constant. . . . The chiefest difference is that the flower (being but sometimes one on a stalk, and sometimes two) consisteth of six white outer leaves, as large as the leaves of the single kinde, having many small yellow pieces, edged with purple circles round about them, instead of a cup, and in the middle of these pieces stand other six white leaves, lesser than the former, and a yellow cup edged with a purple circle likewise, parted into pieces, and they comprehend a few other white leaves, smaller than any of the others, having among them some broken pieces of the cup. The flower is very sweet. . . . There is of this kinde another, whose flower hath not so plain a distinction, of a triple rowe of leavcs in it; but the whole flower is confusedly set together, the outer leaves being not so large, and the inner leaves larger than the former; the broken yellow cuppe, which is tipt with purple, running diversly amongst the leaves, so that it showeth a fairer and more double flower than the former, as it is indeed."

NARCISSUS ALBUS MULTIPLEX (the double White Daffodil). "The leaves of this Daffodill are not very broad, but rather of a meane size, being of the same largeness with the leaves of the purple-ringed Daffodill. The stalke riseth up to be a foote and a halfe high, bearing out of a thinne white skinne or hyslo, one flower and no more, consisting of many leaves, of a faire white colour. The flower is larger than any other double White Daffodill; having every leafc, especially the outermost, as large almost as any leaf of the single Daffodill with tho yellow cup (Incomparabilis) or purple ring. Sometimes it happeneth that the flower is very little double, and almost single, but that is either in bad ground, or for that it hath stood long in a place without removing; for then it hath such a great increase of roots (bulbs) about it that it draweth away into many parts the nourishment that should be for a few; but if you doe transplant it, taking away the of-setts, and set his roots single, it will then thrive, and bearc his flowers as goodly and double, as I have before described it, and is very sweet."—Parkinson, p. 83. Does Parkinson mean this for Codlings and Cream?—P. BARR.

PRODUCTION OF NEW FRUITS.*

NNATURAL fertilisation, as I have told you before, unaided by the hand of man, is as old as creation, but the knowledge of manual fertilisation, the ability of man to assist nature in the process of improvement, seems to have been mostly withheld from us until the present age. Wonderful is this fact, but it is not more so than the unlimited extent to which it may be carried by the genius and sagacity of him who would co-operate with nature in this enchanting labour.

Strange, indeed, that this art should have been held in suspense for so many ages, not until our own time to be brought into practical use. But, thanks to the Disposer of all temporal concerns, it has now come as the harbinger of a progress which is to revolutionise and improve the fruits of the earth while time shall last. Thanks, too, to Knight, Herbert, Lindley, Darwin, Gray, and other teachers of later times, for the lessons of wisdom which have encouraged us to prosecute this most noble work.

The process of fecundation was known far back in the centuries of the past, but not for the production of new and improved varieties of plants. From the days of Pliny to the present time, the custom of suspending the blossoms of the date palm over the trusses of the fruit-bearing trees, was known to be necessary for the production of fruit. So Tournefort and Linnaeus understood the sexual order of plants; but we have no facts to show, so far as I know, that either of these writers had a knowledge that the crossing of different species and varieties would produce from the seed a new variety, which would possess in a greater or less degree the characteristics of the parent plants, and it is doubtful whether Duhamel, Van Mons, or Noisette were acquainted with this wonderful art for the indefinite improvement of our fruits.

This is the art that doth help nature, and great as has been the progress in our time, it is but as the dawn of that day when every section of our varied climes shall be furnished with products of the earth as well adapted to each as the people who inhabit them. How

grand the acquisitions of this art in our day! It is only about fifty years since Mr. Hovey, myself, or other cultivators of our country, attempted the hybridisation of fruits or flowers. Now the knowledge of this art is as well understood as the cultivation of the soil.

These are the means provided by an all-wise Providence for the improvement of our fruits. Would that Prince, Downing, Brincklè, and those other pioneers who have gone before us, could now witness the amazing advances which have resulted from their labours in this cause. O that I could live to participate a little longer in the glorious harvest which is to be gathered from the influence of this art in improving the fruits of our land! These are benefactions which you will leave for the generations that are to follow you—memorials of your love of nature, of home and kindred, which shall live in the hearts of grateful millions, long after you shall have been sleeping in the dust.

DOUBLE PETUNIAS.

THese plants, having a good dwarf habit of growth and flowering very freely, are most valuable for decorative purposes, when well grown. They are easily increased by cuttings put into a little heat. Plants for spring and early summer flowering should be propagated early the previous autumn, and should be kept growing in a very gentle heat through the winter. They should be set near the glass, and kept stopped and watered carefully, and shifted into larger pots when they require it. The plants for autumn flowering should be propagated early in spring, and grown through the summer season in cold pits or frames. The stopping of the young branches should be carefully attended to, and they should also be kept carefully tied out, so as to form nice compact dwarf bushy plants. The plants should not be stopped after the middle of July, but should then be allowed to grow into specimens; these will commence flowering towards the end of August, and will continue to flower up to December. When the specimens are well grown, they are very striking and beautiful, and repay any little labour that has been bestowed on them. They are plants that keep very free from insects, and with a little care and attention may be had in very beautiful condition during the autumn.—M. SAUL, York.

* From *President Wilder's Address to American Pomological Society (Gardeners' Monthly, xxv., 351).*



IPOMŒA THOMSONIANA.

AT page 93 of our volume for 1883 we referred to this fine novelty under the name of *Ipomœa Horsfalliae alba*, it having been at first taken for a white variety of that beautiful stove climber. A closer examination of the plant, however, showed differences sufficiently important to justify Dr. Masters in deciding that it was a

species hitherto undescribed, and in appending to it the name of Mr. Thomson, by whom it was recently brought into notice. It will be a welcome addition to our climbers for the roofs of stoves and warm conservatories, and is wonderfully effective, we are told, when draping the rafters of a structure suitable for it. The plant, which is a very free grower, is clothed with ternate leaves, having fleshy glabrous stalked obovate-oblong acuminate

leaflets, stalked and rounded at the base, instead of sessile ones, and its pure white flowers are nearly twice the size of those of *L. Horsfalliae*, with a subinfundibuliform tube, and an obscurely five-lobed limb three inches across; the stamens and two-lobed stigma just protruding. Messrs. Ireland & Thomson, of Edinburgh, imported it from the East Indies, but it appears to have been for some time in the hands of Mr. B. S. Williams, to whom we are indebted for the illustration.—T. MOORE.

CELERY FOR SPRING.

WHEN this excellent vegetable can be had fit for use from the end of July till the following April its culture surely deserves more attention than it generally receives, especially its treatment in the trenches after being planted out. By treating it according to the nature of the soil much can be done to prolong its season for use.

The soil here is very heavy, and for a supply in the spring months we sow the seed in April, and grow it in the usual way till ready for planting out. We then make trenches not very deep and 3 feet wide, which allows sufficient space for planting three rows in each trench. After being a month or six weeks planted, or according to the progress they have made, the plants receive a slight earthing up of about two inches deep with the natural soil. They receive no other attention except watering in dry weather, and tying the plants with matting to prevent the wind breaking their outer leaves, until the month of October, when we collect the new-fallen beech leaves, and when dry we pack them in the trench to blanch the celery instead of using the soil; but before doing so we make a wall of soil about the height of the plants on each side of the trench to keep the leaves in their place, and to prevent them from being blown about we cover with sawdust.

By adopting the above plan, we have, at present (April 10), fine fresh celery quite different from that obtained by the old practice—namely, surrounding the plants with heavy, wet soil. The advantage gained by using the leaves when lifting the celery in frosty weather will be easily seen.—DAVID MURRAY, *Culzean Gardens, Maybole. (Journal of Horticulture.)*

DIANTHUS NAPOLEON III.

THIS variety *D. hybridus multiflorus* is a plant of undoubted continental origin. By whom it was raised I know not, but if he gave nothing else to floriculture, he established a claim to the warmest gratitude of all lovers of hardy flowers. I think this most useful plant was first exhibited by Mr. C. Turner, and awarded a First-class Certificate of merit by the Royal Horticultural Society. It deserves twenty such awards. It is one of those very useful hybrid mule pinks, and whether it be grown in pots or in beds, it is so wonderfully free as to be surprising in its floriferousness. The flowers are of medium size when compared with those of a Carnation, and of a rich deep purplish crimson colour. It almost flowers itself to death, and after doing so, throws up some young growths from the base that give cuttings out of which to construct plants. I saw a bed of it not long since; there was in the centre a huge disc of the Dianthus, and round it a margin of the white *Malva moschata alba*. It was very effective indeed, and the latter is also a plant worthy a place in the garden. Besides, it does well in pots.—R. DEAN.

CLASSIFICATION OF PEACHES, &c.

THE floral characters of the tree have long been used in the classification of Peaches and Nectarines, but the result was not always satisfactory, for as pointed out by M. Carrière (*Rev. Hort.*, 1884, 260), in an article we here give in a condensed form, what would be small-flowered for one person would be medium-sized for another, or *vice versa*, and the medium-sized of one would be large-flowered of another. All this he proposes to remedy by making use of other characters in the flowers not hitherto employed. He then goes on to say—

When one examines the flowers of the Peach it is at once seen that they present two general forms; in the one form the flowers are long and attenuate at the base, and in general but slightly expanded at the tip, which rather gives them the shape of a little bell—whence the term *campanulaceous*: these are the “small flowers” of horticulturists. In the other group, the flowers are spread out, and have a relatively short base, the broadly oboval, sometimes broadly subelliptical petals,

meet or overlap by their edges, in such a manner that the whole almost exactly recalls a small single-flowered rose—whence the term *rosaceous*; in this class also the stamens are more spread out, and much more rumpled or confused: this class corresponds to those called “large flowers.” There is still another intermediate group with medium-sized flowers, but these do not form a section properly so called, but by their general characters fall into the campanulaceous division; in these the petals are *always distant* and acute, and at their extreme expansion form a sort of star, while the stamens have the filaments straighter, and form a sort of brush in the centre of the flower.

Although it may not be possible to establish absolute limits between these groups, one can, after a few practical comparisons, distinguish the two large groups: *campanulaceous* and *rosaceous*, including the intermediate forms, which, by their general characters, attach themselves to the campanulaceous group.

We do not claim that this classification is perfect, but experience has pointed out to us, that the difficulties are infinitely less than by all other systems employed up to the present. If one adds to these characters taken from the flowers those derived from the leaves, it will be easy, even for a person completely ignorant of botany, to class the varieties of Peaches. To distinguish the latter from one another is rather more difficult, since for that it would be necessary to make use of a third series of characters derived from the fruits.

The characters to be applied in a complete classification, then, form three series, the study of which cannot be simultaneous; first, that of the *flowers*, then, that of the *leaves*, and finally that of the *fruits*. In the spring, when the Peaches are in flower, each tree must be examined, and marked with a number; then its flowers must be noted exactly; the *form* or *shape* first, then, as secondary characters, the relative dimensions, which will serve later on to distinguish the varieties from each other. These notes ought to be entered into a book, so that none may be mislaid. During the summer, when the leaves are well developed, an examination of these latter in the way already explained, should be made analogous to that of the flowers; and later on will come the study of the fruits, applying with discretion

the characters that we shall by-and-by point out. The study will thus be relatively complete, a whole whose judicious application will lead on easily from the general classification of Peaches, to the distinguishing features of the several varieties.—E. A. CARRIÈRE.

LIGHT v. GERMINATION.

THE results of some recent experiments instituted by M. Cieslar with the object of ascertaining the influence of Light upon Germinating Seeds, have been thus summed up by him in the *Annales Agronomiques*. He says:—

(1) The influence of light on germination varies according to the species. Thus, those of the Mistletoe do not germinate without light, while those of Barley, Maize, &c., germinate indifferently in light or darkness. As a general rule small seeds with but little reserve-matter germinate better in light than in darkness, while larger seeds, rich in reserve-matter, either grow better in light than in darkness, or are indifferent. In no case has a seed been found to grow better in the dark than in the light.

(2) The action of light is very complicated, as has been shown by experiments with light of various degrees of refrangibility; the yellow rays are favourable to germination, while the violet rays retard it, and even prevent it altogether at certain low temperatures.

(3) The favourable influence of white light upon the growth of certain seeds is manifested chiefly by the higher vigour of the seeds so grown, e.g., *Poa nemoralis*, *Agrostis stolonifera*, *Nicotiana macrophylla*; further experiments would, without doubt, enlarge the list of these plants.

(4) The very even germination under white light affords evidence in favour of the propitious influence of light on germination.

(5) The germinative energy of small seeds seems to be augmented by the light.

(6) In seeking the causes of the influence of light, it may be said—(a) that the light acts favourably by its conversion into heat; (b) that the favourable effect of yellow light being granted, the acceleration of growth by light is a consequence of accelerated assimilation; (c) that light favours the germination and prosperity of young plants, by producing better root-growth, even in the case of small seeds.

LILIUM AURATUM.

DURING a visit to the grounds of C. L. Allen & Co. my attention was attracted by a fine display of *Lilium auratum*, covering some three acres of ground, the plants of which, for size and vigour, far surpassed anything of the kind that I had ever seen before—each stalk having from fifteen to thirty buds and blossoms upon it. This is a lily that is considered difficult of cultivation, but Mr. Allen says that if properly cared for, it is as easily grown as *L. tigrinum*, and, at my request, kindly gave the following directions for its treatment: This is



W. H. Fitch del.

Engraving G. Severeys Brussels

Impérial Lemon.

a lily that, like *L. speciosum* and some others, forms a new bulb inside of the other for some two or three years, after which it begins to form small bulbs at the base of the stem. In order to keep up a stock, these small bulbs should be taken off and planted in a rich, deep soil. It is essential that they be planted deep, in order that the young bulbs may form above the old one, which they will not do if the old one is near the surface; they should be planted at least ten inches deep, and they will continue to increase and bloom for a long time. If a large bulb be planted near the surface it will gradually waste away. Young vigorous bulbs being the best for planting.—C. E. PARSELL (*in Gardeners' Monthly*).

THE IMPERIAL LEMON.

[PLATE 616.]

WE are indebted to Mr. Rivers for the fruit now illustrated, as well as for the following descriptive notes:—

The "Imperial" Lemon, of which a very exact portrait is here given, is a very large and highly perfumed variety of the Lemon (*Citrus Limonum*). Risso and Poiteaux cite five varieties, but I do not find one answering to the description of the "Imperial," and it is possible that it may have been introduced since the time of these writers. The plant is very robust, and near Torquay it has been cultivated on a wall for some years, bearing abundant crops of fine fruit.

In this part of England glass is of course necessary, but a winter heat of 40° Fah. at the lowest point is sufficient. As a trained tree, with care and good cultivation, large crops may be obtained. The fine flavour and perfume of the fruit renders its cultivation a source of great pleasure, if not of profit.—T. FRANCIS RIVERS, *Sawbridgworth, Herts.*

THE NATIONAL CARNATION AND PICOTEE SOCIETY.

SOUTHERN SECTION.

THE Annual Exhibition of the National Carnation and Picotee Society, Southern Section, which was held on July 22, proved to be a remarkably good one notwithstanding the sneers and inuendos levelled against the management of the Society, all of which it can well afford to pass by without notice. The Veitch Memorial

Prize was won by Mr. James Douglas, of Great Gearies, Ilford, the competition being between him and Mr. E. S. Dodwell. The exhibit consisted of 12 Carnation blooms and 6 Picotee blooms; as regards the former the competition was very close indeed, there being scarcely a point of difference, but Mr. Dodwell's Picotees were later than Mr. Douglas's, and were consequently small and not bloomed out, and here the advantage fell to the Ilford collection. The flowers staged were of Carnations: J. Douglas P.F., William Skirving P.P.B., H. Cannell S.F., Admiral Curzon S.B.; T. S. Ware P.P.B., Rob Roy R.F., Mrs. Gorton C.B., Florence Nightingale P.F.; Jessica R.F., Squire Whitbourn P.F., 913 Dodwell C.B., J. Crossland. Of Picotees: Brunette H.R., Her Majesty L.P., Zerlina H.P., Constance Heron H.Sc., Mrs. Payne H.R.O., Mrs. Gorton L.R. Mr. Turner's flowers were wonderful for their size and general excellence.

In reference to the special merits of the show, one of our contemporaries observes:—The most ardent lover of the Carnation had no reason to find fault with the display made by his favourite flower on this occasion. It was essentially and entirely a show made by Southern growers, and what a barrier Nature has placed in the way of the Southern and Northern growers meeting in friendly rivalry, is shown by the fact that the northern show in Manchester is on August 12th, and Mr. Samuel Barlow is actually pushing on his flowers into bloom under glass, so as to have some of them ready by that date. On this occasion there was a good competition in all the classes, while the flowers were of a high order of merit—large, full, pure in the ground, and finely marked. It was emphatically Mr. Turner's year, for this veteran grower was very strong at all points, staging superb blooms, and taking off something like fifty-seven prizes, many of them being firsts. Mr. Douglas and Mr. E. S. Dodwell were also well represented. It was in all respects a satisfactory exhibition, and it served to illustrate in a remarkable degree the activity of the growers of the Carnation and Picotee in the South. But then, were there not this among the "special" societies, no such exhibition of the old July flower could have been presented to a London public.

CARNATIONS.

Class A. 24 blooms, 12 dissimilar.—1st Prize to Mr. C. Turner, Royal Nursery, Slough, with Tim Bobbin R.F., Florence Nightingale P.F., John Keet R.F., Mayor of Nottingham P.F., Siby' R.F., James Douglas P.F., Rob Roy R.F., Mayor of Nottingham P.F.; William Skirving P.P.B., Matador s.f. Sir Garnet Wolseley P.P.B.; Mrs. Bridgewater R.F.; William Skirving P.P.B., Matador s.f., Master Fred s.b., Jessica R.F.; Jessica R.F., Squire Penson P.P.B., Robert Lord s.b., Mrs. Barlow P.P.B., Robert Lord s.b., Squire Llewelyn P.P.B., Florence Nightingale P.F., Arthur Medhurst s.b. 2nd, Mr. J. Douglas, gr. to F. Whitbourn, E-q., Great Garies, Ilford, with Jessica R.F., Henry Cannell s.f., William Skirving P.P.B., Tom Lord s.f., Florence Nightingale P.F., Admiral Curzon s.b., T. S. Ware P.P.B., H. Cannell s.f.; George s.b., Thomas Moore c.b., Squire Whitbourn P.F., Stanley Hudson c.b., Rob Roy R.F., Mrs. Whitbourn —, James Douglas P.F., Sarah Payne P.P.B.; Rob Roy R.F., Sarah Payne P.P.B., Dreadnought s.b., Black Prince —, William Skirving P.P.B., Seedling —, Seedling —, Squire Whitbourn P.F. 3rd, Mr. E. S. Dodwell, Stanley Road, Oxford, with John Keet R.F., Florence Nightingale P.F., Mrs. Hewitt R.F., 1028 Dodwell c.b., James Douglas P.F., Master Fred c.b., 1184 Dodwell c.b., Florence Nightingale P.F.; Seedling s.f., E. S. Dodwell c.b., Seedling P.F., Seedling s.b., Fred s.b., Rifleman c.b., William Skirving P.P.B., James McIntosh s.b.; Seedling R.F., Rayner Johnson s.b., Seedling P.F., Seedling c.b., Sarah Payne P.P.B., Seedling s.f., Seedling P.F., William Skirving P.P.B. 4th, Mrs. Hooper, Vine Nursery, Bath. 5th, Mr. John Hines, Ipswich.

Class B. 12 blooms, dissimilar.—1st, Mr. J. Douglas, Ilford, with Mrs. Whitbourn —, Miss Helen Lodge R.F., Arthur Medhurst s.b., Miss Henderson c.b.; Florence Nightingale P.F., William Skirving P.P.B., Rob Roy R.F., James Douglas P.F.; George s.b., John Bayley s.f., William M. Hewitt c.b. 2nd, Mr. E. S. Dodwell, Oxford, with Samuel Barlow c.b., Seedling c.b., Fred s.b., H. K. Mayor, c.b.; Sarah Payne P.F., James McIntosh s.b., Florence Nightingale P.F., Seedling s.f.; Master Fred c.b., William Skirving P.P.B., Seedling R.F., Thomas Moore c.b. 3rd, Mr. Joseph Lakin, Temple Cowley, Oxford, with Thomas Bower s.b., Thomas Moore c.b., Lord Milton c.b., Sarah Payne P.F.; Sarah Payne P.P.B., Fred s.b., Tim Bobbin R.F., Arthur Medhurst s.b.; Henry Cannell s.f., James Douglas P.F., Admiral Curzon s.b., Florence Nightingale P.F. 4th, Mr. J. Hines, Ipswich, with John Hines s.b., James Taylor P.P.B., Sporting Lass P.F., Rifleman c.b.; John Ball s.f., Squire Dodwell c.b., Harry Matthews s.f., H. Cannell s.f.; Robert Lord s.b., A. D. Southgate c.b., Florence Nightingale P.F., James Merryweather R.F. 5th, Mr. J. Buxton, Manor Street, Clapham, with Admiral Curzon s.b., John Harland c.b., Mrs. Anderson R.F., Master Stanley s.b.; Stanley Hudson c.b., Mayor of Nottingham P.F., John Hines s.p., Fred s.b.; Philip Thomas s.b., Bright Phœbus —, Mrs. Dodwell R.F., James Douglas P.F. 6th, Mr. S. Brown, Handsworth, Birmingham, with Esther P.F., Sibyl R.F., Harrison Weir c.b., Dr. Foster P.F.; Edward Adams s.b., Florence Nightingale P.F., John Keet R.F., Philip Thomas s.b.; Miss Erskine Wemyss R.F., John Keet R.F., Sarah Payne P.P.B., Jupiter s.f. A stand was also set up by Mr. T. Wilton.

Class C. 6 blooms, dissimilar.—1st, Mr. M. Rowan, Manor Street, Clapham, with Mars s.f., Faleonbridge P.P.B.; Master Fred c.b., Miss Erskine Wemyss R.F.; Florence Nightingale P.F., George s.b. 2nd, Mr. Arthur Brown, Handsworth, with Master Fred c.b., Dr. Foster P.F.; Miss Erskine Wemyss R.F., Edward Adams s.b.; Squire Dodwell c.b.,

Florence Nightingale P.F. 3rd, Mr. Thomas Anstiss, Brill, Thame, with John Keet R.F., Sarah Payne P.P.B.; Annihilator s.f., Seedling —; Squire Penson P.P.B., Henry Cannell s.f. 4th, Mr. W. Slack, Queen Street, Chesterfield, with Henry Cannell s.f., James Douglas P.F.; Seedling —, Harry Matthews s.f.; Edward Adams s.b., Sarah Payne P.P.B. 5th, Mr. H. Catley, Bath, with John Hines s.b., Ajax P.F.; Jupiter s.f., Arthur Medhurst s.b.; George s.b., Jessica R.F. Other stands were staged by Mr. H. Meddick, Bath; Mr Startup, Bromley, and Mr. A. Spurling, Blackheath.

Class D. Single specimens, in classes:

Scarlet Bizarres: 1st, Mr. C. Turner with Robert Lord; 2nd with Master Stanley; 3rd with Robert Lord; 4th with James McIntosh. 5th, Mr. E. S. Dodwell with James McIntosh.

Crimson Bizarres: 1st, Mr. E. S. Dodwell with Seedling 1095; 4th with Seedling 842. 2nd, Mr. C. Turner with A. D. Southgate; 3rd with Thomas Moore; 5th with E. S. Dodwell.

Pink and Purple Bizarres: 1st, Mr. C. Turner with William Skirving; 3rd and 4th with the same; 2nd and 5th with Squire Llewelyn.

Purple Flakes: 1st, Mr. J. Douglas with Florence Nightingale; 4th with Squire Whitbourn. 2nd, 3rd, and 5th, Mr. C. Turner with Florence Nightingale.

Scarlet Flakes: 1st, Mr. E. S. Dodwell with Tom Lord, 4th with an unnamed Seedling. 2nd, 3rd, and 5th, Mr. C. Turner with Matador.

Rose Flakes: 1st and 3rd, Mr. C. Turner with Jessie; 2nd with Mrs. Bridgewater; 4th with Rob Roy. 5th, Mr. J. Douglas with Jessie.

PICOTEES.

Class E. 24 blooms, 12 dissimilar.—1st, Mr. C. Turner, Slough, with J. B. Bryant H.R., Juliette —; Mrs. Webb H.S.C., Her Majesty L.P., Jessie M.P., Mrs. Gibbons H.R., Orlando L.R., Duchess H.S.C.; Mrs. Rayner H.R.O., Louisa H.R.O., Muriel H.P., Mrs. Payne H.R.O., J. B. Bryant H.R., Mrs. Payne H.R.O., Zerlina H.P., Ethel L.R.O.; Dr. Epps H.R., Mr. Tutton L.P., Lucy L.R.O., Her Majesty L.P., Mrs. A. Chaneillor H.P., Maude —, Royal Visit H.R.O., Muriel H.P. 2nd, Mr. J. Douglas, Ilford, with Constance Heron H.S.C., Her Majesty L.P., Brunette H.R., Zerlina H.P., Constance Heron H.S.C., Jessie M.P., Mrs. Payne H.R.O., Mrs. A. Chaneillor H.P.; Jessie M.P., Ethel L.R.O., Baroness Burdett-Coutts M.P., Thomas William L.R., Zerlina L.P., Brunette H.R., Thomas William L.R., Constance Heron H.S.C.; Mrs. Gorton L.R., John Smith H.R., Mrs. Allcroft L.R.O., John Smith H.R., Mrs. Gorton L.R., Her Majesty L.R., Mrs. Allcroft L.R.O., Miss Lee, H.S.C. 3rd, Mr. E. S. Dodwell, Oxford, with Dr. Epps H.R., Clara Penson L.P., Mrs. Rudd H.S.C., Mrs. Niven H.P., Her Majesty L.P., Constance Heron H.S.C., Jessie M.P.; Royal Visit H.R.O., Mrs. Dodwell H.R., Edith Dombrain H.R.O., Novelty H.P., Royal Visit H.R.O., Zerlina H.P., Daisy L.R.O., Countess of Wilton H.R.; Purple Prince H.P., Mrs. Payne H.R.O., Dr. Epps H.R., Mrs. Payne H.R.O., Purple Prince H.P., Edith Dombrain H.R.O., Tinnie H.P. 4th, Mr. J. Hines, Ipswich, with Lady Louisa H.R.O., Brunette H.R., Mrs. Bower L.R., Mrs. Wilson H.R., L'Elegant L.R.O., Mrs. Wilson H.R., Clara L.R., Royal Visit H.R.O.; Picturata H.R., Clara Penson L.P., Edith Dombrain H.R.O., Mrs. Allcroft L.R.O., Edith Dombrain H.R.O., Mary L.P., Mrs. Wilson H.R., Mrs. Bower L.R.; Mrs. Allcroft L.R.O., Mrs. A. Chaneillor H.P., Clara Penson L.P., Mrs. Wilson H.R., Clara Penson L.P., Royal Visit H.R.O., Miss Williams L.R.O., Picturata H.R. 5th, Mrs. Hooper, Bath, with Her Majesty L.P., Mrs. Rudd H.S.C., Mrs. R. Tonge M.P., J. B. Bryant H.R., Louisa H.R.O., Rev. F. D. Horner L.R.; Mrs. Langtry L.P., Emily M.R., Jewess H.R., Mrs. Fordham L.R.O., Mrs. Fordham L.R.O., Rev. F. D.

Horner L.R., Mrs. Rudd H.sc., Her Majesty L.P., Marchioness of Lansdown —, Morning Star M.R.O., Rev. F. D. Horner L.R., Baroness Burdett-Coutts M.P., Glowworm —, Rival Purple H.P., Garibaldi —, Morning Star M.R.O., Mrs. R. Tonge M.P.

Class F. 12 blooms, distinct.—1st, Mr. J. Douglas, Ilford, with Mrs. Bower L.R., Constance Heron H.sc., Jessie M.P., Clara Penson L.P.; Mrs. Payne H.R.O., Her Majesty L.P., Zerlina H.P., Estelle L.R.O.; Ethel L.R.O., Princess of Wales H.R., Miss Lee H.sc., Mrs. A. Chancellor H.P. 2nd, Mr. E. S. Dodwell, Oxford, with Jessie M.P., Brunette H.R., Tinnie H.P., Her Majesty L.P.; Mrs. Payne H.R.O., Mrs. A. Chancellor H.P., Edith Dombrain H.R.O., Medina H.P.; Constance Heron H.sc., Novelty H.P., Muriel H.P., Mrs. Rudd H.sc. 3rd, Mr. J. Lakin, Temple Cowley. 4th, Mr. J. Buxton, Clapham, with Countess of Wilton H.R., Royal Visit H.R.O., Zerlina H.P., J. B. Bryant H.R.; Miss Allcroft L.R.O., Dr. Epps H.R., Mrs. Rudd H.sc., Mrs. A. Chancellor H.P.; Mrs. Dodwell H.R., Alliance H.P., Edith Dombrain H.R.O., Mrs. Keynes L.R. 5th, Mr. T. Wilton, Rectory Grove House, Clapham, with Countess of Wilton H.R., Alliance H.P., Edith Dombrain H.R.O., Mrs. Keynes L.R.; Mrs. Payne H.R.O.; Dr. Epps H.R., Nymph L.P., Royal Visit H.R.O.; Emily M.R., Alice L.P., John Smith H.R., Daisy L.R.O. 6th, Mr. John Hines, Ipswich, with Royal Visit H.R.O., Mrs. Bower L.R., Mrs. A. Chancellor H.P., L' Elegant L.R.O.; Rev. F. D. Horner L.R., J. B. Bryant H.R., Edith Dombrain H.R.O., Clara Penson L.P.; Mary L.P., Miss Horner H.R.O., Mrs. Allcroft L.R.O., Alliance H.P.

Class G. 6 blooms, dissimilar.—1st, Mr. T. Anstiss, Brill, with Hillington's Favorite L.R.O., Her Majesty L.P.; Mrs. Dodwell H.R., Royal Visit H.R.O.; Mrs. Payne H.R.O., Mrs. A. Chancellor H.P. 2nd, Mr. H. Catley, Bath, with J. B. Bryant H.R., Her Majesty H.R.O.; Mrs. R. Tonge M.P., Mrs. Fordham L.R.O.; Alliance H.P., Rev. F. D. Horner L.R. 3rd, Mr. M. Rowan, Clapham, with Mrs. Rudd H.sc., J. B. Bryant H.R.; Dr. Epps H.R., Daisy L.R.O.; Minnie L.P., Royal Visit H.R.O. 4th, Mr. A. Brown, Handsworth, with Lucy L.R.O., Her Majesty L.P.; Daisy L.R.O., Clara L.R.; Mrs. Fowkes —, Clara Penson L.P. 5th, Mr. H. Meddick, Bath, with J. B. Bryant H.R., Royal Visit H.R.O.; Mrs. Rudd H.sc.; Dr. Epps H.R.; Mrs. Norman H.R., Clara Penson L.P. Stands were also set up by Mr. H. Morris, Hayes; Mr. Slack, Chesterfield; and Mr. A. Spurling.

Class H. Single specimens, in classes:

Heavy Reds: 1st, 2nd, and 3rd, Mr. C. Turner, with J. B. Bryant; 4th with Brunette. 5th, Mr. J. Douglas, with Princess of Wales.

Light Reds: 1st and 2nd, Mr. C. Turner, with Mrs. Bower; 3rd and 4th with Mrs. Gorton. 5th Mr. J. Douglas, with Violet Douglas.

Heavy Purples: 1st, 2nd, 3rd, 4th, and 5th, Mr. C. Turner, with Muriel.

Light Purples: 1st and 2nd, Mr. C. Turner, with Her Majesty. 3rd, Mr. J. Douglas, with Nymph; 4th with Clara Pearson; 5th with Her Majesty.

Heavy Roses: 1st, 4th, and 5th, Mr. C. Turner, with Mrs. Payne; 2nd with Royal Visit. 3rd, Mr. E. S. Dodwell, with Royal Visit.

Light Roses: 1st and 4th, Mr. T. Anstiss, with Hillington's Favourite. 2nd, Mr. C. Turner, with Ethel; 3rd with Evelyn; 5th with Empress Eugenie.

Yellow Grounds: 1st, 3rd, and 4th, Mr. J. Douglas, with Ne plus ultra. 2nd, Mr. C. Turner, with Janira; 5th with Mrs. Cavill.

SELFs, FANCIES, OR YELLOW GROUNDS.

Class I. 24 blooms, 12 dissimilar.—1st, Mr. C. Turner, with Mary Morris, Lady Catheart, The Governor, E. S. Dodwell, Lady Stamford, Matador;

W. P. Milner, Reverse, Elegant, Jessica, Florence Nightingale, Lady Cathcart; Seedling 344, Mrs. Bridgewater, Sir Garnet Wolseley, Edith, Matador, Jessica; Flirt, Edith, Virgo, Thomas Tomes, Unexpected, Florence Nightingale. 2nd, Mr. Douglas, Ilford, with Mary, Rob Roy, Fanny (flake), Florence, Purple Gem, Rory o' More, Sultan; A. Medhurst, H. Cannell, Firefly, Alice, Jessica, J. Keet, Sarah Payne, Rosy Queen; Seedling, Amazon, W. P. Milner, Scarlet Gem, Fancy Queen, Fire Gem, Countess of Rosebery. 3rd, Mrs. Hooper, Bath. 4th, Mr. Catley, Bath.

Class K. 12 blooms, dissimilar.—1st, Mr. E. S. Dodwell, Oxford, with Florence, Miss Erskine Wemyss, Dean Wood, Dot; Ruby May, and several Seedlings. 2nd, Mr. Lakin, Temple Cowper, with Ruby May, Polly Halliday, Mrs. Bath, Mrs. Dodwell; Sarah Payne, E. Wilkins, Sir B. Seymour, Bride; Oberon, Rosy Queen, Firebrand. 3rd, Mr. T. Anstiss, Brill. 4th, Mr. Hyam, Hayes. 5th, Mr. H. Meddick.

Class L. 12 yellow-ground Picotees, 6 dissimilar.—1st, Mr. C. Turner, with Prince of Orange, Janira, Prince of Orange, Janira; Dore, Starlight, Eleanor, Starlight; Mrs. Cavill, F. M. Lascelles, Mrs. Cavill, Mazzini. 2nd, Mr. J. Douglas, with Princess Beatrice, Lightning, Mrs. Coleman, Flavius; Mrs. Coleman, Princess Beatrice, Ne plus ultra, Lightning; Prince of Orange, Janira, Prince of Orange, Princess Marguerite. 3rd, Mrs. Hooper, Bath. 4th, Mr. Catley, Bath.

Class M. 9 specimens in pots, dissimilar.—1st, Mr. C. Turner; 2nd, Mr. J. Douglas, both interesting exhibits, but scarcely what is wanted.

Besides the foregoing there were several miscellaneous exhibits. Messrs. Veitch & Sons showed eight boxes of cut flowers, two of Carnations, two of Picotees, and four of Cloves, each containing forty blooms, and several 1st-class Certificates were awarded, of which we must defer a notice till next month. Mr. H. G. Smyth had a box full of his pretty rose-coloured Clove Mary Morris; Messrs. Cross & Steer, of Salisbury, showed their white Cloves, The Governor and Lady Louisa Ashburton, the latter fringed at the edge. From Messrs. Paul & Son, Cheshunt, came a group of Carnations and Picotees in pots. These several features with the show flowers made up a very excellent exhibition.

The two Premier blooms in the show were both varieties raised by Mr. W. M. Hewitt, of Chesterfield, who may well feel proud of the position to which his varieties thus attained. The Premier Carnation was Master Fred c.b., shown by Mr. E. S. Dodwell; and the Premier Picotee, Muriel H.P., shown by Mr. C. Turner.

—T. MOORE.

REGISTER OF NOVELTIES.

NEW PLANTS.

BEGONIA BEDDOMEI, *Hook fil. (Bot. Mag., t. 6767).*—An Indian stemless rhizomatous species, with radical pellucid obliquely roundish cordate angularly-lobed leaves, of a pale green with white spots, and dull pale red beneath; the flowers pale rosy-pink in small cymes on the top of short scapes which spring from the rhizome, the males with four,

the females with eight smaller petals; flowered in December. Assam; Kew.

BEGONIA LYNCHIANA, *Hook. fil.* (*Bot. Mag.*, t. 6758).—A beautiful species with tuberous rhizomes, tall thick fleshy branching stems, large roundish oblong-ovate oblique bright green ciliolate leaves, and stout axillary peduncles bearing large corymbiform panicles 6—8 inches across of bright scarlet flowers, produced from early winter onwards. It is sometimes known as *B. Roezlii*, but is not the *B. Roezlii* of Regel. Mexico; Cambridge Botanic Garden.

BRASSIA ANTHEROTES, *Rchb. f.* (*Gard. Chron.*, n. s., xii., 782).—A handsome epiphytic Orchid, with oblong monophyllous pseudobulbs, ligulate oblong acute leaves, and many-flowered radical scapes of large showy flowers, measuring about six inches in their longitudinal direction, the linear sepals and petals greenish yellow, heavily blotched with dark purple brown, and the panduriform lip extended into a long caudate apex, bright yellow with smaller spots of purple and an orange-coloured crest on the disk. 1st-class Certificate from the R.H.S. last June.

CYPRIOPEDIUM GRANDE, *Rchb. f.* (*Gard. Chron.*, n. s., xviii., 488).—A noble hybrid Lady's Slipper—it has been called "a giant," growing three feet or more in height, robust in growth, with long and broad bright green shining leaves, and branching spikes bearing several large flowers, which have oblong-lanceolate sepals of a brownish colour with darker veins, tail-like narrow twisted petals nine inches long of a rosy hue, and a bold lip pale greenish yellow spotted on the margin. It is the result of a cross between *Cypripedium Roezlii* and *C. caudatum*, and was awarded a 1st-class Certificate by the Floral Committee of the R.H.S. on May 13; exhibited by Sir Trevor Lawrence, Bart.

DRYMONIA MARMORATA, *Hort. Bull* (*Bot. Mag.*, t. 6763).—A stove Gesneriad, probably scandent like its congeners, with thick tetragonal stems, and large elliptic ovate leaves, which are bullate, green mottled with light grey above, and of a light vinous purple beneath; the flowers grow in axillary fascicles, and are yellow, an inch and a half long, with a foliaceous rosy-purple calyx, and very abundant. The filaments are singularly twisted. Supposed to be from Guiana; Kew.

LÆLIA DOMINIANA ROSEA, *Hort. Veitch* (*Gard. Chron.*, n. s., xvi., 108).—A charming epiphyte, of hybrid origin, the result of a cross between *L. exoniensis* and *Cattleya Dowiana*, the latter being the pollen parent. The flowers are smaller than in either parent, the lanceolate sepals and broader undulated petals are rose-tinted or "like claret freely diluted with water," the lip is large flat and whole coloured of the deepest ruby-crimson with a peculiarly rich velvety appearance. This plant which was raised by Mr. Dominy in Messrs. Veitch's establishment at Chelsea, was with one other the whole outcome of the cross, and was fifteen years before it rewarded its raisers with the development of its flowers. It was awarded a 1st-class Certificate on June 24 by the R.H.S.; Baron Schröder.

ODONTOGLOSSUM CRISPUM VEITCHIANUM, *Rchb. f.* (*Gard. Chron.*, n. s., xxii., p. 7).—The most beautiful perhaps of all the forms of *O. Alexandræ* yet known. It was shown and certificated at the Royal Botanic Society's summer show, as *O. crispum mirabile*, but Messrs. Veitch's name has been associated with it by the suggestion of Baron Schröder, now the fortunate possessor of the plant, and it was certificated on June 24 under this name at South Kensington. The habit is that of the type but the flowers have the sepals and petals unusually broad, the petals toothletted, and the margins freely crisped. The ground colour is white, with a zone of a mauve-purple tint inside the white

border, and the surface blotched with purple-brown. Professor Reichenbach observes that it includes and connects the characters of *O. Chestertoni* and *fastuosum*; New Grenada.

PASSIFLORA CERULEA CONSTANCE ELLIOTT, *Masters* (*Gard. Chron.*, n. s., xxi., 700, fig. 133).—A seedling variety of *P. cerulea*, as hardy as the type and having similarly beautiful pedatifid foliage. The flowers are white "almost without a trace of blue," the sepals being white inside, greenish outside, the petals white, and the corona ivory white faintly tinged with yellow towards the tip. It received a 1st-class Certificate from the Royal Horticultural Society last May. A garden variety. Lucombe, Pince & Co.

PRIMULA DOLOMITIS, *Baker* (*Gard. Chron.*, n. s., xxi., 577).—A beautiful dwarf alpine species of the Auricula section, and closely allied to *P. ciliata*, from which it differs by its more distinctly crenate leaves, and longer corolla tube. It has 6—8 broad oblong sessile dull green minutely hairy leaves in a basal rosette, white and minutely ciliated on the margin; and a terete green scape 2—3 inches long terminating in an umbel of 8—10 flowers of a uniform bright lemon-yellow having a cylindrical tube and a broadly funnel-shaped limb of obovate deeply emarginate segments. It comes from the Tyrol, and was shown by J. T. D. Llewelyn, Esq., at the Auricula Show of 1884.

TULIPA ALBERTI, *Regel* (*Bot. Mag.*, t. 6761).—A handsome new Tulip from Central Asia, and related to *T. Gesneriana*, the Tulip of the florists. The leaves are oblong-lanceolate, those of the stem smaller and lance-shaped, all of a glaucous green; while the large bell-shaped flowers on downy stalks have bright red flowers marked at the base on each petal by a bifid obtuse yellow blotch broadly edged with reddish brown, the three interior or petaline segments being more obovate than the outer ones. Turkestan; H. J. Elwes, Esq.

NEW FLOWERS.

ANTIRRHINUM Rowsham Pet.—A singular variety of the Snapdragon, having short petals and protruded stamens, thickly set on erect spikes, the colour deep crimson; 1st-class Certificate R.H.S., June 24; J. King.

BEGONIAS (Tuberous).—*Her Majesty*, a single-flowered variety, having large and finely-formed flowers, the petals white, flushed at the edge with delicate pink; a flower of very fine properties and quality. *Torey Laing*, one of the same section, also with very large and finely formed flowers, of perfect shape; colour orange-red and primrose; this is one of the most distinctly coloured varieties of the present day; 1st-class Certificates R.H.S., June 24. The former also certificated by the R.B.S., and both at the Crystal Palace Rose Show; Laing & Co.

CARNATIONS.—*Celia*, a pale pink self-coloured variety, which is said to retain its colour well when grown in the open air; good form and very effective; 1st-class Certificate R.H.S., July 8; Veitch & Sons. *Martha*, a fancy variety, with a yellow ground and rosy scarlet and purple shadings; very pretty and distinct; 1st-class Certificate R.H.S., July 8; G. Duffield. *Madame Carle*, a pure white tree variety, having medium-sized double flowers, freely produced; W. Bealby.

DELPHINIUM Gloire de Nancy.—A very fine double variety, with a large branching spike of flowers of a dark lilac colour; fine and distinct; 1st-class Certificate R.H.S., July 8; W. Bealby.

IRIS KÆMPFERI.—*Earl Granville*, a remarkably fine flower, measuring eight inches in diameter; colour rich purple brightened with lilac, of splendid quality. *Mary Anderson*, pale lilac, veined with purple; extra fine quality. *Princess Maud*, pure

white with slight yellow blotches on the outer segments; extra fine in size and substance; 1st-class Certificates R.H.S., July 8; Veitch & Sons.

PINK Picturata, a somewhat ragged-looking variety, pure ground, and broad lacing of pale purple; how it was this variety was thought good enough for the award of a Certificate is inexplicable; 1st-class Certificate R.H.S., June 24; C. Turner.

PELARGONIUMS (Large-flowered or Show).—The following are Mr. E. B. Foster's new varieties of the present year:—*Magnate*, of great size and fine quality, having rich dark top petals with a wire edge of bright crimson, and salmon-carmine lower petals, veined with dark; white throat; flower of great size and very fine form. *Man of Arms*, dark top petals with a wire edge of crimson, bright orange carmine lower petals with many heavily pencilled dark lines. Both had 1st-class Certificates at R.B.S., June 18. *Purpureum*, rosy purple lower petals, glossy dark top petals with narrow margin of rosy crimson, white throat, distinct, good habit, and very free; 1st-class Certificate R.H.S., June 24. The following also were shown:—*Democracy*, rich dark top petals with narrow margin of crimson, rich pink lower petals with slight dark lines and blotches, large white throat, fine form, and good quality. *Outlaw*, rich dark top petals and wire edge of crimson, lively orange lower petals with slight dark blotches, and white throat; finely formed flowers produced in bold trusses. *Lively*, a bright orange crimson self with a rich black spot on each top petal, and broad margin of deep bright scarlet; very showy and effective. *Rising Sun*, rich dark top petals with margin of deep crimson and orange, crimson lower petals with slight dark pencillings, white throat, fine form, and very free. *Chief Secretary*, large dark blotch on top petals, with broad margin of shaded crimson, warm pink lower petals, and white throat. *Czar*, shaded crimson lower petals, with dark lines, rich dark top petals and white throat, distinct, fine form and very free. *Fair Rosamond*, glossy dark top petals with slight wire edge of deep rose, orange lower petals with slight dark lines and stains, white throat. *Patrician*, glossy dark top petals with slight wire edge of crimson rose, rosy pink lower petals with slight dark blotches on each, white throat. *Glow-worm*, bright scarlet, pure in colour and very striking, dark blotch on top petals, fine in colour, bold and showy. *Democrat*, dark top petals, deep rosy pink lower petals shaded with orange, white throat and good form; C. Turner.

PELARGONIUMS (Fancy).—*Phyllis*, deep purplish rose, each petal having a wire edge of white, large white throat; 1st-class Certificate R.B.S., June 18. *Murillo*, in the way of the foregoing, but with more of puce in the colour, white throat, and also edged with white; very free and good form: C. Turner.

PRIMULA CAPITATA.—This is what is known as Hooker's variety of this beautiful Himalayan Primrose; the flower heads are of an intense purple colour, much deeper than is seen in the form usually grown; 1st-class Certificate R.H.S., June 24; J. T. D. Llewlyn.

ROSE Sunset.—A Tea-scented variety, apparently distinct from any other variety in cultivation; the flowers are large, full, and finely shaped, of a rich apricot colour, and most densely perfumed; 1st-class Certificate R.H.S., June 24; W. Paul & Son.

VERBENA Striata.—A distinct variety with much novelty of marking, the lavender-pink and white quarterings being regular, and the pip stout and of fine form; 1st-class Certificate R.H.S., June 24; W. H. Stacey. The following are new varieties by the same raiser:—*Fantastic*, having pencillings and flakes of bright crimson on a white ground. *Hamlet*, orange crimson, large and finely formed pip.

Orion, fine in colour, being of a lively orange crimson. *Ophelia*, rich pucey rose, fine both in pip and truss. *Lilacina*, pale lilac mauve, very distinct and pleasing.

NEW PUBLICATIONS.

The BOTANICAL MAGAZINE (June—July) contains figures of *Begonia Lyncheana*, Hook. f. [t. 6758], a tall growing fleshy stemmed Mexican species, with obliquely roundish-ovate angulate leaves, and large corymbs of scarlet flowers of a very showy character; Cambridge Botanic Garden.—*Trichocaulon piliferum*, N. E. Brown [t. 6759], a short fleshy stemmed Stapelia, very like a *Mammillaria* in general aspect, and dotted here and there with small pentangular brown flowers; S. Africa; Kew.—*Meconopsis Wallichii fusco-purpurea*, Hook. f. [t. 6760], a beautiful Indian poppy of biennial habit, tall and erect growing, the pinnate leaves clothed with golden hairs, and the flowers of a rich brownish purple; G. F. Wilson, Esq.—*Tulipa Alberti*, Regel. [t. 6761], a fine showy Tulip with oblong-lanceolate glaucous leaves, puberulous peduncles, and large red flowers marked at the base with six bifid wedge-shaped yellow blotches, bluntly rounded and bordered with red-brown; Turkestan; Kew.—*Steuadera colocasiæfolia*, C. Koch [t. 6762], a fine stove Arad, supposed to be from Burmah; it has large ovate leaves of a deep bluish-green, and reddish-purple spathes yellow externally; Kew.—*Drymonia marmorata*, Hort. Bull. [t. 6763], a stove Gesneriad, having the broad elliptic-ovate leaves mottled with grey and rugose, and the axillary flowers yellow with leafy rose-coloured calyx; Guiana; Kew.—*Hypericum empetrifolium*, Willd. [t. 6764], a small erect twiggy greenhouse evergreen shrub, with small ternate narrow linear leaves, and cymose panicles of pretty yellow flowers; it is related to *H. Coris*, but is a more woody plant; Greece; Kew.—*Caraguata sanguinea*, André [t. 6765], a fine Bromeliaceous plant from New Grenada, noticed at p. 9.—*Solanum Jamesii*, Torrey [t. 6766], a tuber-bearing species of *Solanum* related to the common potato; it grows about a foot high, has branched stems, pinnate leaves, with 5—9 rather small leaflets, and small cymes of white flowers; it produces small tubers of good flavour and texture, and is being grown as a "means of improving or rendering disease-proof our cultivated species"; Arizona and Mexico; Kew.—*Begonia Beddomei*, Hook. f. [t. 6767], a dwarf Indian rhizomatous species, with large oblique roundish-ovate angularly lobate leaves, which are pellucid pale green and marked by silvery dots; the flowers small, pale pink; Assam; Kew.

The GARDENERS' CHRONICLE (May 17—July 5) contains the following novelties:—*Masdevallia flaveola*, Rchb. f. (p. 638), a curious little plant, with spatulate leaves and slender peduncles bearing 2—3 light yellow flowers, which appear to have two orange zones on the perigone; the tails are narrow at the base, dilated above; Costa Rica; F. Sander.—*Odontoglossum Pescatorei Lowianum*, Rchb. f. (p. 638), a grand variety, with very long sepals and petals, which are of a light mauve with numerous spots and dots of deeper mauve; Sir T. Lawrence.—*Dendrobium dactyliforum*, Rchb. f. (p. 638), a species allied to *D. macrostachyum*, with elongate sulcate stems rhizophorous at the base, and in the upper part bearing short racemes of ochre-white flowers having the lobes of the lip bordered by dark brown; F. Sander.—*Lachenalia fistulosa*, Baker, *L. lilacina*, Baker, and *L. odoratissima*, Baker (p. 668), three new greenhouse bulbs, the first with flowers half an inch long white edged with purple; the second bright lilac with a little blue at the base; the third white with green tips, and very sweet scented; Cape Colony; T. S. Ware.—*Hymenocallis eucharidifolia*,

Baker (p. 700), a fine stove bulb, with thin bright green leaves a foot long, and 4—5 flowered umbels of green-tubed flowers having linear perianth segments, and a funnel-shaped white corona with two marginal teeth between each pair of stamens; South America; Kew.—*Fritillaria Schliemannii*, Ascherson & Sintenis (p. 795), a small half-hardy bulb allied to *F. tulipifolia*, growing a foot high, and having 6—8 alternate leaves, the lower oblong-lanceolate, the upper lanceolate acute, and a solitary drooping flower of a yellowish-green colour without any distinct tessellation; Asia Minor; Troy.—*Iris Kerneriana* (p. 795), a new species closely allied to *I. spuria* and *I. Guldenstadtiana*; also found near Troy.—*Cælogyne Dayana*, Rchb. f. (p. 826), a very fine new Orchid closely allied to *C. tomentosa*, having slender pyriform pseudo-bulbs, petiolate oblong acuminate leaves, and drooping racemes of numerous flowers, which are of a pale ochre, the three-lobed oblong lip having the lateral lobes marked with dark brown longitudinal stripes, and the middle lobe with a crescent-shaped blotch of the same colour opening towards the base; there are two plaited keels extending from the base of the lip to the base of the mid-lobes, where they divide into six keels covered with denticulate indulations; Borneo; Veitch & Sons.—*Cattleya intricata*, Rchb. f. (vol. xxii., p. 7), a fine supposed natural hybrid, with the habit of *Cattleya intermedia*, the narrow sepals and petals of the lightest white rose, the lip like that of *Lælia elegans picta*, only the sharp-angled side lobes are white and the free blade of the stalked mid-lobe of the deepest purple; Low & Co.—*Cattleya Mossiae Arnoldiana*, Hort. Sander (p. 7), a very fine thing, the sepals and petals of the lightest white rose, the lip narrow approaching *C. Lüdemiana*, having dark purple basilar stripes, a light midline and fine orange stripes on a lighter ground, and the anterior space sulphur with a few slight purple lines; Sander & Co.—*Odontoglossum Vuylstekeanum*, Rchb. f. (p. 7), a very fine natural hybrid, in the way of *O. mulus sulphureum*; the sulphur yellow flowers have the dorsal sepal, the petals which have the sharp edges of those of *O. Wilckeum*, and the dilated lip blotched with the deepest orange, the lateral sepals being of that colour except at their base; it is a grand thing. M. Vuylsteke.—*Odontoglossum crispum Veitchianum*, Rchb. f. (p. 7), one of the finest of the crispums (*Alexandriæ*), the large toothletted flowers being freely blotched with brown on a white ground, and having a mauve or purple-tinted zone within the edge; Veitch & Sons.

GARTENFLORA (March—May) contains figures of *Tropaeolum digitatum*, Karst. [t. 1146], an elegant species, with peltate pedately 5—7 lobed leaves, and orange yellow dentate-ciliate flowers with a scarlet tube and green scaps; Columbia.—*Tulipa Elwesii*, Reg. [t. 1147, fig. 1], a four-leaved Tulip with the leaves linear-lanceolate, and the flowers white; native country not known.—*Stenomesson incarnatum*, Baker [t. 1147, fig. 2], the Coburgia incarnata of Sweet, a stout Amaryllid with scarlet tubular flowers having the segments marked with green.—Group of Terrestrial Orchids [t. 1149], including *Serapias cordigera*, *Orchis longicurvis*, &c.—*Aethionema coridifolium*, DC. [t. 1150], a pretty little half shrubby rock plant with purplish-rose flowers from N. E. Lebanon.—*Adiantum farleyense*, Moore [t. 1151], a fine hothouse fern from the West Indies; should be potted in loam.—*Scutellaria Lehmanni*, Reg. [t. 1152, fig. 1], a soft-wooded stove plant with obscurely tetragonal stems, opposite cordate-ovate leaves and short terminal racemes of crimson scarlet flowers, with the corolla tube over half an inch long; Western Cordilleras; St. Peters-

burgh Botanic Garden.—*Calimeris Alberti*, Reg. [t. 1152, fig. 2], a hardy perennial Composite, with erect corymbosely-branched stems, sparsely clothed with linear acute leaves, and terminating in solitary heads an inch and a half across, having numerous narrow linear pale lilac florets; Turkestan; St. Petersburg Garden.—*Pentachæte aurea*, Nutt. [t. 1153], a pretty dwarf annual 6—8 inches high, of slender branching habit, with alternate filiform leaves and golden rayed flower-heads, having about two rows of acutely linear florets and a small compact orange disk; California; Haage & Schmidt.—*Oxytropis ochroleuca*, Bunge [t. 1154, fig. 1], a hardy perennial, with short erect stems, pinnate leaves, and short racemes of small yellowish white flowers; Thian Schan; St. Petersburg.—*Oxytropis frigida racemosa*, Reg. [t. 1154, fig. 2], a hardy perennial with radical tufts of pinnate leaves, and racemes of pale violet flowers on scapes longer than the leaves; East Turkestan.

LA BELGIQUE HORTICOLE (Aug.—Dec.) contains plates of *Elæagnus longipes* [t. 16], a Japanese shrub with deciduous elliptic or oval leaves, and numerous long-stalked axillary small white fragrant flowers, succeeded by oblong fruits of a reddish hue, which are edible.—*Anoplophytum amœnum*, E. Morr. [t. 17], a small epiphytal Bromeliad, with branching stems, clothed with subulate leaves, and few-flowered spikes of flowers of which the sepals are rosy and the petals bluish-lilac; Brazil; Liége.—*Cypripedium Spicerianum*, Rchb. f. [t. 18], a charming Lady's Slipper, of Indian origin, with handsome green leaves and greenish flowers the dorsal sepal overarching white with a bold central crimson stripe; now pretty well known.—*Aphelandra Margaritæ*, E. Morr. [t. 19], a handsome dwarf stove plant with cylindrical hairy stems, decussate elliptic leaves marked on the face with about half a dozen bands of white on each side, and short terminal spikes of orange-coloured flowers; S. America; MM. Jacob-Makoy.

REVUE HORTICOLE (April 1—July 16) has the following coloured plates:—*Prunus sinensis*, a pretty slender bushy-habited hardy deciduous shrub, clothed in spring with small blush-white flowers, conspicuously staminate, and followed by globose red fruits as large as marbles; it is often confounded with *P. japonica*, which has smaller flowers.—Coloured Designs for Flower-beds—11 designs of varied figures.—*Anthurium Scherzerianum Vervaeneum*, said to be the best of the white-spotted forms.—Group of Hybrid *Alstræmerias*.—Parterre in the Parc de la Chaumette.—*Downing Peach*, an early variety with a reddish-brown velvety skin, as figured.—*Tropæolum Madamæ Gunter* and *Cardinale*, the first yellow with red spots, and dwarf in habit, the second a scarlet self belonging to the Lobbianum group.—*Yucca Whipplei violacea*, a very fine variety raised in the Jardin d'acclimation, at Hyères, and flowered for the first time in May, 1883; the flowers are drooping, two inches long and an inch across, greenish-white in the basal half, deep purple at the tip, the colours blending together in the middle part of the flower; the anthers, not shown in the figure, are described as being purple. It is very handsome and quite novel.

L'ILLUSTRATION HORTICOLE (6 liv.) contains a double page figure of *Azalea (indica) Vervaeneana* [t. 523], a very large semidouble flower of good outline carnation rose, with a broad and very irregular white margin, and having a few scarlet flakes, and a large blotch of deep crimson spots, the rosy ground colour in some places extending nearly to the edge, and in other parts falling far short of it. Raised by M. Joseph Vervaene by crossing Königin der Weissen with pollen of versicolor; it is a very handsome kind.—*Odontoglossum nebulosum guttatum*, Rchb. f. [t. 524], a splendid variety in which the lower half of the scaps and petals and

the whole of the lip is dotted with bright fuscous spots; Mexico; Compagnie Continentale.—*Nepenthes coccinea*, Hort. [t. 525], a handsome Pitcher plant, the pitchers of which are cylindrical, swollen and rounded at the base, and freely spotted with crimson.

The JOURNAL DES ROSES (June—July) figures the Bengal Rose *Duchess*, a vigorous grower, with shining leaves, and full sized flowers, solitary or in bunches, white with the faintest tint of rose outside, and yellow in the centre.—*Madame Prosper Laugier*, a hybrid perpetual of a bright carmine, fully double and of large size but somewhat flat. It is a fine rose nevertheless, and was raised by M. Eugène Verdier in 1869, and sent out in 1875.

In REVUE DE L'HORTICULTURE BELGE (June—July) we find coloured figures of *Impatiens Sultani* grouped with *Impatiens flaccida alba*, the latter of which has been erroneously taken for a white variety of *I. platypetala*; both are handsome free-growing decorative plants. The plate in the July number represents a group of *Double Petunias*.

BULLETIN D'ARBORICULTURE, ETC. (April—June) has coloured plates of *Pear Beurré d'Amanlis panachée*, *Pear Beurré Royal* of Turin, and *Apple Souvenir d'Etechove*, which will be more fully noticed on another occasion.

GARDEN GOSSIP.

AMONG the NEW PLANTS shown at the International Exhibition at St. Petersburg, the group set up by the Compagnie d'Horticulture of Ghent, occupied the first position, and won the Emperor's special prize, which consisted of two vases of rare marble, worth £100. Amongst them were some very fine Aroids, e.g., *Alocasia imperialis*, a splendid species, in habit not unlike *A. macrorhiza*, but in substance like thick leather, and blue-bronze in colour above, purple beneath; and *A. regina*, similar and of the same species, but darker in colour. These will be known among the best of the new plants of this year. There were also included, *Homalomena Siesmayerianum*, amply furnished with broadly cordate dark green leaves. *Philodendron Regelianum*, not unlike *P. crinipes*. *Pothos Enderiana*, striking, because of its black-green foliage, and seemingly excellent for clothing a wall. *Schismatoglottis decora* and *variegata*, beautiful plants, with white variegation. One of the most striking Aroids is *Cyrtosperma Matveeffiana*, from Sumatra, with prickly stems and *Tacca*-like divisions of the leaves; with this exception the preceding Aroids are all from Borneo. Other plants of this year are *Curculigo seychellensis*, with prickly stems and divided leaves, which is perhaps a Carludovica. *Pandanus leucospinus*, good in its present small state. *Livistona Wagneriana*, with long, yellow, depressed spines. *Croton Oosterzeei*, *Pandanophyllum Wendlandii*, like *P. humile*, but darker in colour; and *Calamus kentiaeformis*. Among previous introductions were *Zamia maypurensis*, from Venezuela, apparently distinct. *Gymnogramma schizophylla gloriosa*, finer and more plumose than the species. *Tillandsia Pastuchoffiana*, and *Aglaonema Røbellini*, from the Philippines, one of the best of this group, fine in foliage and in its white coloration. A fine *Anthurium Andreanum* from the Compagnie deserves notice; it is in habit almost like a Philodendron, 5 feet high, with internodes 4 or 5 inches long, and bearing many fine spathes. MM. Chantrier Frères, of Montefontaine, France, exhibits two distinct hybrid Anthuriums described lately by M. E. André; of these *Anthurium carneum* is a hybrid between *A. Andreanum* and *A. ornatum*; the other, *A. Chantrieri*, is between *A. subsignatum* and *A.*

ornatum. Both are fine plants in foliage, and the former possesses prettily coloured broad spathes with white spadix, effective and durable. *A. Chantrieri* resembles in its spathe a narrow form of *A. ornatum*, but its foliage is better and the petioles are shorter.

— OF new varieties of GOLD-LACED POLYANTHUS, Mr. Brockbank states that there have been two exhibited this year which were raised by Mr. Paul T. Barlow, of Congleton, the raiser of the fine variety, Congleton Queen. They are *Lord Beaconsfield*, shown by the Rev. F. D. Horner, and which in London won the 3rd in the singles, and was in Mr. Beswick's 2nd prize lot of three at Manchester; and *Blackbird*, which was also in Mr. Beswick's lot, and won 4th in the singles. Both Lord Beaconsfield and Blackbird are of Mr. Paul Barlow's raising, and are characterised by clear delicate lacing, good colour, and fine circular eyes. The fault, if any, is that the lacing is sometimes paler than the centre. They furnish a strong contingent to reinforce the old black-ground Polyanthus.

— OF the new DICTIONARY OF GARDENING (Gill, 170, Strand) several numbers have reached us; and without vouching for all their contents we can say without hesitation that it promises to be a very useful book of reference on plants and plant-culture, including also the products of our vegetable and fruit gardens. There are, however, some slips which need correction. *Abies* for example seems a little "mixed." It is called the Spruce Fir, which is right from the point of view adopted till recently in this country, but the species described are those of the Silver Fir genus, heretofore *Piceas*, but rightly brought here under *Abies* in conformity with the classification now adopted; consequently they should have been designated Silver Firs and not Spruce Firs. The *Acanthaceæ* are called a large "genus" of plants instead of "natural order." These and other oversights may be easily put right, and detract but little from the general utility of the work, which moreover is freely illustrated.

— REFERRING to SKIMMIA OBLATA, our contemporary the *Gardeners' Chronicle* observes that it is an excellent under-shrub for winter gardening, for the furnishing of small beds, or for forming a border to large ones; the foliage is neat, therefore not likely to be injured by wind, and the plant is perfectly hardy, and flowers profusely. It is added that it sets no berries, as its congener, *S. japonica*, does, but that for these we must await the arrival of its mate, as we had to do in the case of the *Aucuba*. There is, however, no need to wait this arrival as its mate is here already, the *S. fragrantissima*, which is quite common in gardens, being the *S. oblata mascula*, or pollen-bearing form of the species.

— SOME HYBRID GYMNOGRAMMAS have recently been raised by Mr. F. F. Stange, of Hamburg, his newest crosses being *G. Spihlmanni* (*G. decomposita* × *L'Herminieri*), *G. Braedermannii* (*G. peruviana argyrea* × *L'Herminieri*) and *G. Flandriæ*.

— THE Rev. J. Stevenson is preparing for publication, by Messrs. Blackwood & Sons, a FLORA OF BRITISH FUNGI (*Hymenomycetes*), with illustrations by Worthington G. Smith, F.L.S. The work will be issued in two volumes, post 8vo., and will contain full descriptions of all British

Hymenomycetes (chiefly Agaricini, Mushrooms and Toadstools), with habitats, seasons of growth, &c. The Edible and Poisonous Species will be specially noticed and commented on. The Illustrations will be engraved on wood, and will include figures of all the genera and sub-genera. The illustration of sub-genera will supply a much-felt want, and will greatly facilitate the study of Agarics. The issue of the work will depend on a sufficient number of subscribers being received by an early date.

— THE pretty *PIERIS JAPONICA*, though little known, is by no means new, for Thunberg described it in his *Flora Japonica* under the name *Andromeda japonica*, and many later authors on Japanese plants have mentioned it, amongst them Maczimowicz, who gives a careful description of it under the name *Andromeda japonica*. But Bentham and Hooker maintain Don's genus *Pieris* in their *Genera Plantarum*, so that that name will stand. Plants of it have been shown during the flowering season for the last two or three years by Mr. Anthony Waterer, who has had it especially fine this season, at the meetings of the Royal Horticultural Society at South Kensington. It is in England a hardy evergreen shrub or bush, with neat, thick, dark green, somewhat lanceolate, crenately serrate leaves, and long drooping panicle clusters of white pitcher-shaped blossoms. Assuredly it is a very ornamental plant. In Japan it already gives two varieties; one with yellow-margined leaves, and one dwarf form.

— VAST strides have been made during the last few years with the AMARYLLIS family, and besides those which naturally bloom in spring some autumn-flowering varieties have been obtained. These latter have been produced by crossing the evergreen *A. reticulata* with the spring-flowering type, and this has been done almost at the same time by Messrs. Veitch & Sons, of Chelsea, who have introduced Autumn Beauty, and Mr. B. S. Williams, of Holloway, who have obtained Mrs. Garfield and Mrs. William Lee. These varieties retain the evergreen character of *A. reticulata*, and in their cultivation cannot be treated to such a decided season of rest as those which are the offspring of *A. aulica*, *A. pardina*, *A. Leopoldii*, and others which blossom earlier in the year.

In Memoriam.

— MR. AUGUSTUS FENDLER died on the island of Trinidad, November 27, 1883, at the age of 71 years. He was by birth a Prussian, received a good ordinary education, and went to the United States about the year 1840. In 1846 he was selected by Dr. Engelmann and Dr. Asa Gray to make a botanical collection in the northern part of New Mexico on the occasion of the movement of the United States troops to Sante Fé. Some ten years later, he migrated to Tovar, a German settlement in the mountains of Venezuela, where he made a large collection of dried plants. After a short sojourn in his native country, his longing for botanical exploration, and for a milder climate, took him to Trinidad, where for a time he botanised with his old zeal and assiduity. Fendler was a close and accurate observer, a capital collector and specimen maker, very painstaking and methodical, and his excellent distributed collections are classical. He is commemorated in a

beautiful and quite peculiar Saxifrageous shrub, indigenous to New Mexico and Texas (*Fendlera rupicola*), and numerous species of his own discovery bear his name, which will be lastingly and well remembered in botany.

— M. J. C. GRÉNEWEGEN, chief gardener at the Botanic Garden at Amsterdam, died on May 24, at the age 73 years. His efforts to popularise Horticulture, and his judicious management of the garden under his care are well attested by his compatriots and friends.

— DR. HENRI ROBERT GOEPPERT, Professor of Botany at the University of Breslau, and Director of the Botanic Garden, died recently at the age of 84 years. Both Botany and Horticulture lose a sympathetic friend by the death of this illustrious and venerable savant, to whom they owe a deep debt of gratitude for his generous and unceasing efforts, during upwards of 50 years, to contribute to their advancement.

— MR. GEORGE TOLL, of Hullard Hall Nursery, Manchester, died on June 23, aged 49 years. Mr. Toll was a native of Dunsford, near Exeter, Devonshire, and in early life was employed in the nurseries of the Messrs. Veitch & Sons, and Messrs. Lucombe, Pince & Co. When the Art Treasures Exhibition was opened in Manchester in 1857 he was sent by the latter firm with a large collection of Orchids, a collection of plants that in those days was considered almost unique, and which was subsequently purchased by Mr. W. Turner, of Barr Hill, Pendleton, who also secured Mr. Toll's services. The plants were eventually removed to Pendlebury House, where many additions were made by the late J. A. Turner, Esq., M.P. In June, 1868, the collection was broken up; and soon after Mr. Toll secured the business at Hullard Hall, and for the last sixteen years has been known as one of the more prominent nurserymen in the neighbourhood of Manchester.

— MR. CHARLES EWING, of Golden Grove, Chester, formerly gardener at Bodorgan, died on July 1, aged 67 years. He retired from the superintendence of Bodorgan Gardens nearly twenty years ago, and had since lived at Chester, where he took an active part in all matters likely to benefit the town. The cause of death was failure of the heart's action; but up to the time of this attack he was apparently in full health and vigour. He was the inventor of the Glass-walls which were once thought to be useful structures, but were found inefficient. While at Bodorgan he proved himself to be a most intelligent, and successful gardener.

— DR. EUGÈNE P. N. FOURNIER died recently at Paris, after a long illness, aged 50 years. M. Fournier devoted almost all his attention to botany, including Ferns, among the professors of which he took high rank. He was one of the founders of the *Société de Botanique*, and for long acted as its secretary. The French Government commissioned him to edit *Flora of Mexico*, and at the time of his death he had commenced the publication of two monographs for the *Flora of Brazil*. M. Eugène Fournier not only loved the botany of to-day, but was one of the most learned of its historians. His death is a sad loss to that branch of science, and will be acutely felt through the whole scientific world.



W.H. Fitch del.

Hardy Azaleas
1. H.H. Hunnewell. 2. Mrs Walter Druce

Chromolith. Severeyns Brussel's

WATERER'S NEW HARDY AZALEAS.

[PLATE 617.]

SOME months since we published a plate illustrating a couple of Mr. Anthony Waterer's splendid new Hardy Azaleas.

These varieties are so immensely superior to all others yet known and distributed, if not to all that have hitherto been raised, that we now give figures of some other sorts, so as, if possible, to impress on the horticultural mind, by iteration, a lasting sense of the great merits of these brilliant-flowered shrubs.

We have already stated the points in which the merits of these novelties consist, but we may repeat here that it is in size of flower, in substance of petal, in brilliancy of colour, and in the accompaniment of foliage that these claims to distinction may be allowed to rest. At Knap Hill they may be seen by hundreds at the proper season, presenting immense variety of form and colour; and even those who would visit them during the next month or two would not be disappointed, as the autumn-tints of the foliage of many of them are splendid.

FIG. 1 of the accompanying plate represents a variety named H. H. HUNNEWELL, a splendid flower of the most brilliant glowing scarlet, with a fiery orange blotch on the upper segment; no artificial colours can do it justice, but the artist has caught something of its character in the lowermost flowers whence the orange blotch is very distinctly seen, the paler orange portions of the other flowers representing the reflection of light on the intensely brilliant surface. It is sturdy in habit, with a good broad well-developed leaf, and the truss is also bold and fine, formed of very large well-expanded flowers.

FIG. 2 stands sponsor for a charming flower, certainly the best in its section. It is named MRS. WALTER DRUCE, and, as will be seen from our illustration, is a variety of surpassing beauty, the flowers being large, well-expanded, with broad flat segments, a little wavy at the edge, which adds to their charms, pure white, with a wedge-shaped blotch of orange-tinted yellow on the top segment; the filaments have a touch of rose-colour at their base, which though slight is quite apparent, and gives a finishing touch to the painting of the flower. It is a free-growing sort, producing foliage with the flowers, and is altogether a first-class Azalea.

We owe our thanks to Mr. Waterer for the materials whence the figures were drawn, and we trust the publication of them may help to bring the Hardy Azalea again to the front. The improvements effected at Knap Hill within the last half dozen years or so, have been marvellous, for as we have already said, "flowers in size and quality equalling those represented, and of nearly all colours—yellows of all shades, crimsons with orange blotches, rose-pinks, coppery-reds, whites, and various other pleasing combinations of colour have been secured; and not only singles in splendid variety, but also doubles of striking beauty and excellence. Thus improved in quality and size of flower, thus varied in colour till one almost feels as if nothing further need be desired, thus set off by the fresh foliage which is now put forth with the blossoms, we may, on behalf of the Hardy Azalea, challenge comparison with any early-blooming flowering shrub existing in our gardens."—T. MOORE.

DESCRIPTIONS OF THE BEST CARNATIONS.—VII.

THE group which comes next before us is a very beautiful one, and comprises many gems both for the exhibition table and the home stage. It is that of the

PURPLE-EDGED PICOTEES.

ALLIANCE (*Fellowes*).—Heavy-edged. Raised at Shotesham Rectory, Norfolk. First bloomed in 1870, sent out in 1873. A fine full flower, with a broad, smooth, and fairly stout petal, and good white. A very desirable

variety and good grower, though somewhat shy to root, and occasionally apparently inclined to sulk in the late autumn months. Will carry two blooms.

ALICE (*Lord*).—Raised at Todmorden from seed taken from Mrs. Hannaford, fertilised with pollen from Mrs. Bayley. An exquisite variety, a narrow-edged heavy, in the south probably frequently a light edge, but whether in the one character or the other is unbeatable for its high quality. White, and colour rich, sparkling and full of life; petal broad, smooth,

and of the finest texture, well continued to the crown; form fine; size medium. First bloomed in 1872; sent out in 1876. A fine grower; will carry two blooms to the plant.

ANN LORD (Lord).—Light-edged. Another of the beautiful varieties raised by Mr. Lord of Todmorden. From the same cross and same pod of seed with Alice. Language cannot exaggerate the high quality of these varieties. Recently some exception has been taken to this variety in that occasionally there has been asserted to be breaks in the marking on the edge. It is, however, in my experience a microscopic fault, but a more serious drawback exists in the fact that it is a shy rooter, and apt to sulk in the autumn. Fine plants may, however, be obtained by removing the layers immediately the callus has formed, say in mid-September, and plunging on a bed of fibre, or a spent hot-bed, and plants thus treated will give flowers which will sustain severe criticism. The white ground, texture, quality, form, and formation of petal are simply perfect, and, though very distinct, it is a worthy companion to Mary (Simonite), shortly to be described. Sent out in 1874.

BARONESS BURDETT-COUTTS (Payne).—Medium or light purple edged, with a very fine broad and smooth petal and clear white ground. A good grower, but must be freely disbudded, as it is somewhat thin of petals. A telling flower whether on the home stage or in a collection. Raised by Mr. John Payne, Worcester Cottage, St. Paul's, Oxford, from a seedling bright rose, fertilised by pollen from Mary (Simonite). First bloomed in 1876; sent out by Mr. Turner in 1880.

CLARA PENSON (Willmer).—Light-edged. A glorious variety, but, like many other beautiful things in nature, needing careful study and attention to develop it in its highest excellence, the petals being apt, in florist's phraseology, to "saddle" as the bloom opens. Therefore the aid of a card whereby the petals may flatten themselves as they expand is necessary. But, granting the proper development of the flower, there are indeed few to surpass it, being large in size, fine in quality, smooth, of good substance, and beautifully edged with a fine band of bright purple. A good grower, early in bloom; sent out in 1881.

CONSTANCE (Dodwell).—Heavy-edged. A seedling from Fanny (Lord). A full flower of fine quality, broadly margined with rich purple on a pure white ground. Habit of grass very dwarf, but a good grower. First bloomed in 1879; sent out in 1880.

CYNTHIA (Turner).—Medium or light-edged. A good useful variety of full size and fair quality; petals broad, smooth, and of good substance; markings distinct and pleasing. First bloomed in 1870; sent out in 1872.

EDITH (Dodwell).—A seedling from Fanny.

Heavy-edged, bright and pure. Not so broadly marked as Constance, previously described, but a very distinct, well built flower, of good average quality. First bloomed in 1879; sent out in 1880.

EVELYN (Hewitt).—Light-edged. Raised at Chesterfield from seed taken from Minnie or Mary, from the habit of grass, I infer the latter. A fine variety; petals large, smooth, beautifully formed and of great substance; white ground pure; size medium. A good grower. First bloomed in 1880; sent out in 1881.

FANNY (Lord).—Medium-edged. One of the grand batch of seedlings raised by Mr. Lord in 1872 from the same parents. Like her sisters Alice, Ann Lord, and others yet to be described, Fanny cannot be surpassed for its high quality, finely formed petal, purity of white ground and distinctness of markings. The crown petals are so large that they overbear and force down the guards, unless the flower be bloomed upon a card when this evil, to the exhibitor, is remedied. Like Constance and Florence Agnes next to be described it is prolific in its habit, though dwarf in the grass, and it has the further grand quality of seeding freely. First bloomed in 1872; sent out in 1877.

FLORENCE AGNES (Dodwell).—Heavy-edged. A seedling from Fanny, but with double the width of marginal colour. A flower of high quality and very distinct. First bloomed in 1879; sent out in 1882.

HER MAJESTY (Addis).—Light-edged. Large, smooth, well formed and very distinct. A very telling variety, whether on the home stage or exhibition table. But it is not nearly so perfect when examined in detail as some of its congeners, lacking breadth of petal, especially in the lower tiers, and it has also the further fault of bursting its pod in the opening of the flower, a fault I think of grievous consequence. First bloomed about ten years since.

JESSIE (Turner).—Medium or light feather edged. A good useful variety of full size and fair quality, though far behind the richness of ground colour to be seen in Alice, Ann Lord, Mary, Zerlina, and other purple-edged varieties. Nevertheless it is a telling variety on the home stage and for the back row of a stand, from its size and form and finely-formed petal. First bloomed in 1870; sent out in 1872. Will carry two, sometimes three, blooms to a plant.

KING OF PURPLES (Norman).—Heavy-edged, one of the later varieties of the late Mr. Norman. A good grower; petals of fair size, well formed, smooth, and of good substance; size medium; markings rich and distinct; white ground pure. Sent out about ten years since.

LEAH (Addis).—Heavy-edged. Form and form of petal fine, white ground pure, marking

rich; early in bloom and of delicate growth; is best when propagated by piping (cuttings). One of the best of Mr. Addis' later batch. Sent out simultaneously with Emily, Her Majesty, &c.

LIZZIE TOMES (*Dodwell*).—Heavy-edged. Offered in 1880, when introduced to commerce, as the "finest heavy-edged purple I had up to that time bloomed, fine in form and of large size; beautifully marked with a solid edge of deep plum purple on a white ground of the richest quality." It has scarcely sustained this high repute in subsequent years, but it is nevertheless a variety of great excellence and beauty. First bloomed in 1879. A seedling from Fanny.

MARY (*Simonite*).—Light-edged. A superb variety; well done and in its best dress impossible to be surpassed. Full, and fine in form and form of petal; of extra substance; white ground untouched by spot or bar; the marking a bold distinct wire edge; higher properties cannot be enumerated; yet, in some cases and under unfavourable conditions, Mary is inclined so to shed portions of the rich marginal colour on the under surface of the petal, as to transform what should be the lovely white ground almost to lavender, and it is important to know how this may be guarded against. First then the grower should obtain plants which have never been subject to excessive stimulation, or suffered from neglect in cultivation, that is from dust, dirt, insect pests, or excessive moisture; and finally as the flower breaks forth, it should be carefully shielded from strong sun. Writing some years since my friend and brother said, "Mary should never see the sun," but since I have had the strain in question from another esteemed brother, Mr. Robert Lord, of Todmorden, I have rarely been troubled with this fault, and at her best Mary is indeed glorious. Raised from an unnamed seedling. Sent out in 1866.

MASTER NICHOL (*Schofield*).—Light-edged. A variety raised in the neighbourhood of Leeds, and sent to me by my friend the late Mr. George Rudd, as "fairly surpassing Mary." With me it has failed to attain such a very high degree of excellence, but it is a good variety and sometimes may come into the same rank with Mary. A good grower; recently sent out.

MEDINA (*Fellowes*).—Heavy-edged. A very distinct and in my eyes a most beautiful variety. A broad-edged heavy, colour very bright, white ground pure, medium size, a good grower. I first saw this variety in the collection of Mr. Jonathan Booth, of Failsworth, near Manchester, and I think it one of the best heavy edges of the many fine flowers Mr. Fellowes has raised. A good grower; sent out about ten years since.

MINNIE (*Lord*).—Light-edged. Another of

the fine varieties raised by Mr. Lord, from the same cross from which Alice and Ann Lord resulted, and like the sister-varieties, though perfectly distinct, not possible to be surpassed in the beauty of its form, breadth and substance of petal, smoothness of texture, lovely white ground, and beauty and distinctness of marginal colour. Mr. Lord regards this as the best of his light-edged varieties, and Mr. George Rudd describes it as the "best of this class." Nothing certainly can surpass the beauty of the specimens repeatedly produced by Mr. Lord, but in a class so rich, more than one or two will from time to time advance claims to such a high distinction. Sent out in 1876; first bloomed in 1872.

MRS. A. CHANCELLOR (*Turner*).—Heavy-edged. A large full flower, of fine form, heavily margined with bright purple, on a pure white ground, very smooth and distinct; this, but for the advent of Muriel (Hewitt) would undoubtedly have been queen of the broad heavies, and intrinsically it is a most beautiful variety; but though larger and fuller than Muriel, it lacks its lustrous quality, and though for two previous seasons Mrs. Chancellor had monopolised the prizes in the heavy-edged purple class at the exhibition of the National Carnation and Picotee Society, Southern Section, the single bloom shown by Mr. Turner in 1881, of Muriel, took at once, and most properly, the first place in the class. Sent out in the autumn of 1880. Parentage unknown, but I have little doubt it has Norfolk Beauty blood in its veins.

MRS. NIVEN (*Niven*).—Heavy-edged. Raised by the late Mr. James Niven, when Curator of the Botanic Gardens, Hull, from seed presented to him by Mr. Robert Marris, of Leicester, a name familiar in the mouths and honoured by an elder generation of florists for much good work done to advance their pursuits. A well-marked fine flower of high quality, which but for a microscopic serrature on the edge would hold a very high place in its class. A good grower; will carry two blooms; sent out in 1875.

MRS. SUMMERS (*Simonite*).—Heavy-edged. A grand flower. In its best days an unsurpassable variety, and even yet, despite the influence of age, in Yorkshire phrase, "bad to beat." Petals broad, stout, smooth, and beautifully marked with a rich purple; white ground pure and lustrous; form fine; of full size. Habit of grass robust. I make no doubt from the same pod of seed with Mary by the same raiser, yet nevertheless impatient of wet, as indeed is almost every variety of plant grown, in autumn and early spring-time. Being rather late, it should have the advantage of a cold house or frame when first potted, to bring it in with the general bloom. Sent out in 1866; will carry two blooms.

MR. TUTTON (*Payne*).—Light-edged. By the raiser of Baroness Burdett Coutts. Shown in singular beauty by Mr. Turner at the Slough show last year, and promising when more widely grown to occupy a high place even in this highly exalted class. Mr. Payne writes me: “My first seedling, Eliza, light purple, was raised in 1850 or 1851 from Crask’s Prince Albert, a good old flower, and this Eliza was the seed-bearing parent of all my best flowers, and I always found she produced a majority of Roses, quite seven out of ten, the first of which was Rosy Circle, figured in the FLORIST for 1861, a fine thing. Then came Mr. Tutton and Purity which were raised in 1868 and shown first at the time of the R.H.S. show at Oxford in 1870, but when sent out by Mr. Turner I have no recollection, nor do I certainly know the pollen parent, but in all probability it was heavy Rose P. the Rev. H. Matthews of which I then had a large stock. I could always depend on Eliza for a pod of good seed, until I lost her in 1875.” I thus learn Mr. Tutton is an older variety than I had supposed, as I saw it for the first time in 1882, and it does not appear in Mr. Turner’s Catalogue for 1880.

MURIEL (*Hewitt*).—A broad-edged heavy. In my judgment the mistress of the broad-edged section. Raised from seed taken from Mrs. Niven. First bloomed in 1880; sent out in 1881. Like Master Fred, c.b., by the same raiser, this variety has been sought from every quarter, and well it will reward careful cultivation. When first offered some good friends of mine were a little sceptical as to its merits, but when seen the desire of possession speedily banished scepticism. Not a strong grower, and sent out from a limited stock, it is not nearly as yet generally cultivated, but a season or two will remedy this. As will be seen by our Report (p. 135), this variety won Premier prize, and each prize in its class, at the recent exhibition of the National Carnation and Picotee Society.

NORFOLK BEAUTY (*Fellowes*).—Another of the fine varieties raised at Shotesham Rectory, Norfolk. First bloomed in 1870; sent out in 1873. A broad-edged heavy; fairly full, good in form, of good substance and smooth. Lacks the robustness of growth and character of flower which distinguish Mrs. Summers and some other varieties, but a desirable sort.

NOVELTY (*Matthews*).—Raised in Mid-Leicestershire by the Rev. H. Matthews, and is a novelty indeed. A bizarre-edged picotee, pink on purple; the effect to my sense is singularly beautiful, and I rejoice to know I am not alone in this sense. As a flower it is not without marked fault indeed, the centre petals being small and inferior in form, but its beauty of colour covers and obliterates this defect, and every year when shown, it has

excited marked admiration. A very old friend indeed took me sharply to task when I first placed it in my stand for daring to show a flower outside all classification, but his anger soon evaporated as he looked at its beauty. Sent out, I believe, in 1877.

NYMPH (*Lord*).—Light-edged. A fine variety, though not equal in merit to Alice, Ann Lord, Minnie, and others raised by Mr. Lord. Nevertheless it is a variety I shall not willingly give up, as it has a beautifully clear white ground, and a very distinct narrow wire edge marginal colour. Mr. Lord is uncertain as to its origin, but I have little doubt it has Mrs. Hannaford’s blood in it, though the shape of petal is inferior. A good grower. First bloomed in 1871; sent out in 1873.

PURPLE PRINCE (*Dodwell*).—Broad-edged heavy. “A seedling from Zerlina, set with pollen from Medina; it has the grand white and substance of the former, with the rich colour and breadth of the latter, and but for a tendency in a cool humid season like the past to throw its colour in spots, beyond the margin of the petal, it would, unquestionably, hold the first place amongst the broad, heavy-edged.” Whether this grave fault, imperceptible on the seedling plant, may recur in a warm genial season, experience only will show, but even should it remain the variety will, I believe, long have value for its great effect on the home stage. A good grower; should not be highly stimulated. First bloomed in 1881; sent out in 1883.

TINNIE (*Dodwell*).—Narrow-edged heavy. Described by Mr. Lord when he first saw it opened into bloom, as “a fair rival to Zerlina,” praise which carries it, as I think, at once into the very highest class, and praise which I think friends well qualified to determine, have admitted it has subsequently fully earned. It is, however, very distinct from Zerlina, having a narrower band, and a distinct shade of colour from that renowned variety. A good grower. A seedling from Fanny (Lord); first bloomed in 1879; sent out in 1880.

ZERLINA (*Lord*).—Heavy-edged. Last upon my list, but amongst the very first in my regard. From the same pod of seed with Alice, Ann Lord, Minnie, and Fanny, it is impossible, as I have previously said of these flowers, to exaggerate their excellence or over-exalt their quality. Raisers in all generations may strive, as they assuredly will, and they may develop new forms and shades of colour or combinations of colour, but they will never surpass the richness of quality, stoutness of substance, distinctness of markings, smoothness of edge and surface, symmetry of form, or breadth of petal, which distinguish these and other fine varieties. No one with even a smattering of knowledge of the wonderful diversity possible to nature, and the beauty to

be found in her productions, could think of putting a limit to her power, but in the directions indicated it may be permitted even for the finite to speak with confidence. It will always be of interest to know how this excellence has been attained, and in the fact that it has come from parents of high descent, florists will have the key to further developments, and enlarged delights. A vigorous grower. First bloomed in 1872; sent out in 1876.—E. S. DODWELL, *Stanley Road, Oxford.*



FIG. 1.—EARLY YORK CABBAGE.

SOME GOOD CABBAGES.

ONE of the most delicious and wholesome of our common garden vegetables is a well-cooked Cabbage. It is, moreover, one to which very few persons object, but which on the other hand meets with general if not universal approval. What wonder then that there should be a multitude of varieties claiming the attention of the gardener. On this point, Mr. Barron in one of the Chiswick



FIG. 2.—LITTLE PIXIE CABBAGE.

reports says, that though “the number of truly distinct and typical varieties is not very extended, yet their variability of character and appearance has led to an almost endless mul-

tiplication of names which are most confusing and misleading.” On the occasion of the trial to which these remarks refer, 150 so-called distinct sorts were grown, but many of these proved to be synonymous, and even of the few distinct types the number of sorts really wanted is very limited. Thus for spring sow-

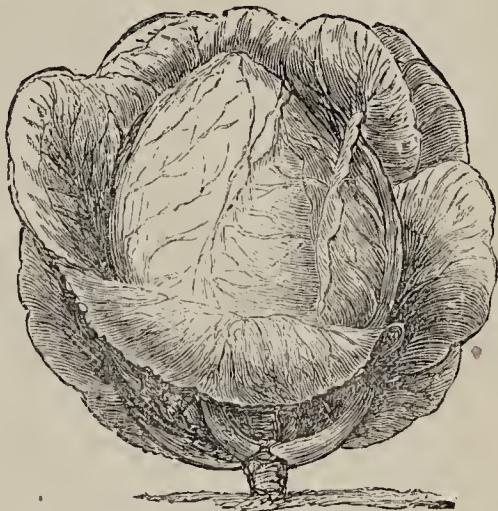


FIG. 3.—EARLY HEARTWELL CABBAGE.

ing, after reducing the number to seven, Mr. Barron marks, as most to be recommended, Early York, Nonpariel, Rosette Colewort, and St. John’s Day; and for autumn sowing his selection consists of Little Pixie, Enfield Market, Nonpariel, and Winnigstadt. The general



FIG. 4.—WINNIGSTADT CABBAGE.

character of most of these is shown in the accompanying figures, for the use of which we have to thank Messrs. Carter & Co., of Holborn, and for the descriptive notes we are indebted to the *Journal of the Horticultural Society*, v. 150.

EARLY YORK (Fig. 1).—A very distinct type of Cabbage of very excellent quality. Plant of small compact growth on a short slender

stem; height averaging from ten to twelve inches. Leaves few, erect, of rounded form and slightly cupped, very smooth and even, of a deep green colour, with a thick coating of bloom and a few white venations. Hearts small, formed very quickly, of an ovate form with a rounded top, very firm and solid. Summer and winter use. To be sown in spring. One of the synonyms of this variety is the Small Oxheart; and the Tom Thumb Early Dwarf is a selected variety of very fine quality.

LITTLE PIXIE (Fig. 2).—Plant of very small close compact growth averaging about eight inches in height. Leaves short, rounded, smooth, of a light green colour. Hearts large for the size of the plant, of conical form, with a broad base and rounded points, forming very early, and of excellent quality. Good for late summer and autumn use. Sow in spring; may be planted fifteen inches apart. This is the Small Oxheart of the French, and also bears the synonyms of Early Oxheart and Early Normandy. That known as Louviers is a somewhat larger form, but a very fine selection.

EARLY HEARTWELL (Fig. 3).—This is an early stock of the Nonpareil, a very fine type of Cabbage, described as being dwarf in habit, seldom exceeding twelve inches in height, and of close compact growth. Leaves light green, of medium size, rounded at the point, somewhat cockled and crumpled. Hearts of broad conical form, from four to six inches in diameter, formed very early, very firm and solid, and of excellent quality. One of the most esteemed of Cabbages for general use. Of this, as already remarked, the Heartwell is a very fine close-growing early stock. Wheeler's Imperial belongs to the same category.

WINNIGSTADT (Fig. 4).—A very distinct and excellent Cabbage for both summer and autumn use, which should be sown in August or very early in spring. Plant of medium size on short thick stem. Leaves, the outer ones, large spreading, smooth, very thick and fleshy, of a deep green colour with a heavy bloom. Hearts very large, broad, conical, and sharply pointed, the point frequently twisted somewhat on one side, very solid, and of excellent quality. This sort may be specially recommended for its hardiness.

NEW CARNATIONS AND PICOTEES.

THE National Exhibitions, North and South, are now over, and they have afforded us an opportunity to compare the new varieties not yet sent out, with those already in the hands of the growers.

It is absolutely necessary that there should be two exhibitions, one in the north, and another in the south. Even then there is some difficulty in fixing a correct date, as the seasons vary. It has been found, however, after a very long experience, that any date within a few days of the 20th of July is the best for London; and the first week in August is the best date for Manchester. Of course when it is found that the flowers are likely to be too early or too late, some effort must be made to retard them or push them on, as may be deemed necessary. I have frequently noticed at Newcastle-upon-Tyne the ability shown by amateurs of small means in getting their Carnations and Picotees in to the date fixed; whether the exhibitions are early or late, they always seem to be able to present their flowers in good condition. I judged their stands one year in September, and an excellent exhibition they made at that late date. This year they were able to make a very good display on the 23rd July, one day after the great exhibition in London. I saw no new flowers in the north, but at such an early date this was scarcely to be expected.

At the London exhibition the new flowers exhibited showed a decided advance. In Carnations Mr. Dodwell has during the last four or five years made more progress than some growers have done in a life-time. He showed nothing very striking amongst the Scarlet Bizarres. In this class Mr. Benjamin Simonite, of Sheffield, gained the highest award with a new flower named *Joseph Crossland*, grown at Great Gearies. It obtained the first prize and a First-class Certificate; the scarlet and maroon flakes on a good white ground are very rich and decided. The second prize was awarded to a variety raised and exhibited by Mr. Dodwell named *H. A. Rolt*, it has broad flakes of light scarlet and maroon on a good white ground. In the Crimson Bizarre class, a number of good seedlings were exhibited, by far the best being *Mrs. Francis Whitbourn* (Dodwell), grown at and

exhibited from Great Gearies. The flowers are of good form, the petals being nicely rounded and smooth on the edge, and the colour pinkish crimson on a good white ground; this variety obtained the first prize in its class and was honoured with a First-class Certificate. *Crimson King* (Dodwell) obtained a First-class Certificate, and the second prize in the same class. It is quite distinct in its blackish purple and rich crimson flakes; as shown the flowers are but medium-sized; exhibited by Mr. Douglas. Mr. Dodwell had some good scarlet flakes, and Mr. Douglas a good rose flake named *Miss Helen Lodge*, which were not brought before the judges at all, owing to the visitors crowding in and interfering with the work.

Mr. Charles Turner, of Slough, exhibited some exceedingly good new Picotees, raised by the Rev. Charles Fellowes, of Shotesham Rectory, Norwich. *Juliet* received the first prize in the light purple class; it is a large flower with a distinct bright purple edge, and a clear good white. *Duchess* is an extra fine variety classed with the heavy scarlet edges, and is a larger and better flower than *Constance Heron* by the same raiser; this received a first prize in its class, and also a First-class Certificate. It has an even well-defined edge, and a good white. *Maude* is a distinct and remarkably fine light rose edge; it obtained the first prize and a First-class Certificate in its class; the edge is well defined, the petals pure white, and of fine form. *Orlando* is another very promising flower in this section.

There are some really good new Picotees in the hands of the raisers in the "north countrie." Mr. Simonite exhibited a very fine wire edge red Picotee at Manchester, raised by Mr. Horner, but it was past its best. Mr. Horner has also raised a very fine "gossamer-edged" rose Picotee. We know what Mr. Horner undertakes he always does well, and if he goes in as a raiser of Picotees we may expect something unique.

The Border Carnations are now held in great estimation, and they can be well left in the hands of Messrs. James Veitch & Sons, of Chelsea, who seem to have taken them under their special protection in their town nursery at Chelsea. They exhibited a remarkable selection of new varieties, and obtained

First-class Certificates for the following:—
Mrs. Glen, the best of the primrose-coloured kinds, having broad well-formed petals. *Miss Mary Anderson* is also in advance of any of the yellow kinds, and would have obtained a certificate but for the fact that *Mrs. Glen* was thought the better variety. *Harvester* well deserved the First-class Certificate it obtained, and will probably be the most popular of all. It is of the same colour as *Florence*, buff or apricot-coloured, and smooth on the edges, whereas *Florence* is fringed. *Celia*, delicate rose pink, and *John Barnet*, deep pink, are the best flowers in those colours. The Messrs. Veitch also obtained a First-class Certificate for a very distinct rose-coloured *Pink*, named *Rose Perfection*, a large handful of its sweetly perfumed flowers being exhibited. — J. DOUGLAS, *Ilford*.

THE NATIONAL CARNATION AND PICOTEE SOCIETY.

NORTHERN SECTION.

 N the 12th ult., twenty-one days after the exhibition of the Southern Section of the Society, on July 22nd, the Northern meeting was held under the auspices of the Council of the Royal Botanical and Horticultural Society of Manchester in the noble Town Hall of that city. The interval well illustrates the variable period of flowering of these summer-blooming plants, though two exhibitions fail to bring the growths of all interested into focus on the days as now chosen, and at least a third exhibition should be organised. The date as hitherto chosen for the south, is suitable for the London district and some thirty or forty miles to the north; and the second week of August will, with usual seasonal conditions, meet the needs of the growers from the hill districts of Lancashire and Yorkshire; but this leaves a large area, commencing in the south and east with Oxford and Cambridge, and continuing through the Midlands to South Yorkshire and York, and west and south of Manchester, where the bloom culminates mid-way between the dates of the Southern and Northern exhibitions respectively, and where consequently the lovers of the flower realise, save in an exceptional year, the unhappy condition expressed in the old saw of being "between two towns at

dinner-time." Probably by a supplementary exhibition, as in 1882 and 1883, or by an independent organisation, the evil will in future years be obviated.

Of this exhibition itself we have nothing but praise to speak. At South Kensington the flowers were glorious, but they were fully equalled for growth, and surpassed in the depth and richness of colour, by those produced by Mr. Robert Lord, of Todmorden, and Mr. J. Whitham, of Hebden Bridge, who were first in the 12 blooms, dissimilar, and 12 blooms, nine dissimilar, respectively. Eighteen exhibitors contended for honours at South Kensington, a marvellous addition to the three and four of the years before the revival of the Southern meeting; twenty-seven good men and true brought exhibits to Manchester. Thirty-nine stands of twelves, twenty boxes of sixes, and some four or five hundred single specimens were placed on the table. Mr. Lord's first prizes, both in Carnations and Picotees, were almost perfect; and premier prizes were fitly awarded to his fine specimens of Master Fred c.b. (Hewitt) in Carnations, and Muriel H.P. (Hewitt) in Picotees. Thus, as at South Kensington, the premier award both in the Carnation and Picotee, went to productions of the same raiser, an unprecedented event in the history of the Carnation and Picotee, and we heartily congratulate Mr. Hewitt thereupon.

New flowers were not numerous, but they were good. Mr. Whitham had a dark, richly marked c.b. in the way of Thomas Moore, but somewhat fuller, in the leading place in his stand; and Mr. B. Simonite, whose Picotees should have had second place, brought his fine rose or scarlet-edged seedlings, four, commented upon last year, and a light-edged red of great promise, darker in colour than Mrs. Gorton or Thomas William, a variety raised at Kirkby Malzeard from Mr. Simonite's seed by Mr. Horner, which if of two or three days younger growth would possibly have disputed honours for the premiership. Mr. John Cliff, of Wortley, sent a fine seedling Self of a deep flesh tint, which was highly commended, and a heavy-edged Purple Picotee, which the judges desired to see again. Mr. Chadwick had also some promising seedling Picotees, the best being a heavy purple of a very rich and deep shade, which with good growth is likely to obtain a very prominent place in its class.

The judges for the 12 bloom class, dis-

similar, and single specimens, were Mr. John Bayley and Mr. Jonathan Booth; and for the remaining classes Mr. B. Simonite, Mr. John Beswick, and Mr. E. S. Dodwell.

The following is a list of the prizes:—

CARNATIONS.

Class A. 12 blooms, dissimilar.—1st, Mr. Robert Lord, Todmorden, with Master Fred c.b., Earl of Wilton P.F., J. D. Hextall c.b., Fred s.b., James M'Intosh s.b., Squire Llewelyn P.P.B., Admiral Curzon s.b., President P.F., Albion's Pride c.b., Sportsman s.f., Rob Roy R.F., Robert Lord s.b. 2nd, Mr. J. Beswick, Middleton, with George s.b., Ivanhoe s.f., Master Fred c.b., Lord Napier s.b., John Keet, R.F., William Skirving P.P.B., James Cheetham s.f., Lord Milton c.b., Eccentric Jack c.b., Earl of Wilton P.F., Mrs. Barlow P.P.B., Admiral Curzon s.b. 3rd, Mr. Geo. Geggie, Bury. 4th, Mr. Ben Simonite, Rough Bank, Sheffield, with James Douglas P.F., Sarah Payne P.P.B., Seedling R.F., Seedling P.P.B., Arthur Medhurst s.b., Seedling s.f., William Skirving P.P.B., Seedling R.F., Seedling s.f., John Simonite c.b., Seedling c.b., Robert Lord s.b.

Class C. 12 blooms, 9 dissimilar.—1st, Mr. J. Whitham, Hebden Bridge, Yorkshire, with Seedling c.b., Mercury s.b., Shirley Hibberd c.b., Admiral Curzon s.b., James Douglas P.F., Squire Llewelyn P.P.B., Clipper s.f., James Douglas P.F., Fred s.b., J. D. Hextall c.b., George s.b., Eccentric Jack c.b. 2nd, Mr. E. Shaw, Bury, with James Cheetham s.f., Crista-galli R.F., Rifleman c.b., George s.b., John Keet R.F., Sir Joseph Paxton s.b., Fred s.b., Dr. Foster P.F., Mercury s.b., Clipper s.f., Admiral Curzon s.b., James Cheetham s.f. 3rd, Mr. F. Law, Todmorden. 4th, Mr. J. Whittaker, Royton. 5th, Mr. Richard Gorton, Gildabrook, Eccles.

Class E. 6 blooms, dissimilar.—1st, Mr. S. Barlow, Stakehill House, Castleton, Manchester, with Arthur Medhurst s.b., James Taylor P.P.B., Seedling R.F., James Cheetham s.f., Seedling c.b., Sir Garnet Wolseley P.P.B. 2nd, Mr. G. Thornley, Middleton, with Lord Milton c.b., Fanny Gardiner s.b., Splendour s.f., Lord Napier s.b., J. D. Hextall c.b., Earl of Wilton P.F. 3rd, Mr. W. Slack, Chesterfield. 4th, Mr. Howard. 5th, Mr. Bealey. 6th, Mr. J. Pemberton. 7th, Mr. J. Kitching.

Class G. Single specimens, in classes:

Scarlet Bizarres: 1st, 2nd, and 3rd, Mr. Robert Lord with Admiral Curzon. 4th and 5th, Mr. J. Beswick with Lord Napier. 6th, Mr. B. Simonite with Robert Lord.

Crimson Bizarres: 1st, 2nd, and 3rd, Mr. R. Lord with Master Fred. 4th, Mr. F. Law with the same. 5th, Mr. J. Whitham with J. D. Hextall.

Pink and Purple Bizarres: 1st, Mr. B. Simonite with Seedling; 2nd, with William Skirving. 3rd and 5th, Mr. G. Geggie with Mrs. Barlow; 4th, with James Taylor; 6th, with Sir Garnet Wolseley.

Scarlet Flakes: 1st and 2nd, Mr. G. Geggie with James Cheetham. 3rd, Mr. R. Lord with Sportsman. 4th, Mr. J. Beswick with James Cheetham; 5th, with Ivanhoe. 6th, Mr. J. Whitham with Henry Cannell.

Rose Flakes: 1st and 6th, Mr. F. Law with Crista-galli. 2nd and 3rd, Mr. R. Lord with the same; 4th with Lovely Ann. 5th, Mr. William Taylor, Middleton, with Crista-galli.

Purple Flakes: 1st, Mr. R. Lord with Squire Whitbourn; 2nd, with President; 4th, with Squire Trow. 3rd, Mr. G. Geggie with James Douglas. 5th, Mr. F. Law with Earl of Wilton. 6th, Mr. E. Shaw with Dr. Foster.

PICOTEES.

Class B. 12 blooms, dissimilar.—1st, Mr. R. Lord, with Mrs. A. Chancellor H.P., Clara Penson L.P.,



W. H. Fitch del.

Apple Tom Put.

Lady Holmesdale H.R.O., Master Norman H.R., Brunette H.R., Mrs. Allcroft L.R.O., Thomas William L.R., Edith D'Ombrain H.R.O., Zerlina H.P., Miss Horner L.R.O., Ann Lord L.P., Robert Scott H.R. 2nd, Mr. J. Beswick, with Charles Williams H.R.O., Minnie L.P., Bonnie Jane H.R., Mrs. Wilson H.R., Mary L.P., Alliance H.P., Dr. Abercrombie H.R., Daisy L.R.O., Muriel H.P., J. B. Bryant H.R., Thomas William L.R., Mrs. Summers H.P. 3rd, Mr. B. Simonite, with Seedling L.R. (Horner), Mrs. Niven H.P., Seedling L.R.O.P., Jessie M.P., Seedling H.R.O., Clara Pensou L.P., J. B. Bryant H.R., Seedling L.R.O., Muriel H.P., Seedling H.S.C., Mary L.P., Zerlina H.P. 4th, Mr. G. Geggie. 5th, Mr. J. Chadwick, Dukinfield.

Class D. 12 blooms, 9 dissimilar.—1st, Mr. F. Law, with Mrs. Payne H.R.O., Minnie L.P., Mrs. Allcroft L.R.O., Zerlina H.P., Beauty of Cheltenham M.P., Brunette H.R., Nymph L.P., John Smith H.R., Thomas William L.R., Ann Lord L.P., Miss Horner L.R.O., Mrs. Gorton L.R. 2nd, Mr. R. Gorton, with Purple Prince H.P., Mrs. Payne H.R.O., Alliance H.P., Thomas William L.R., Rev. F. D. Horner L.R., Mary L.P., Thomas William L.R., Ethel L.R.O., Mrs. A. Chancellor H.P., Fanny Helen H.R.O., Alliance H.P., Mary L.P. 3rd, Mr. W. Taylor. 4th, Mr. E. Shaw. 5th, Mr. J. Whittaker.

Class F. 6 blooms, dissimilar.—1st, Mr. S. Barlow, with Emily M.R., Zerlina H.P., Medina H.P., Thomas William L.R., Minnie L.P., J. B. Bryant H.R. 2nd, Mr. J. Whitham, with Zerlina H.P., Royal Visit H.R.O., John Smith H.R., Minnie L.P., Brunette H.R., Thomas William L.R. 3rd, Mr. G. Thornley. 4th, Mr. S. Lord. 5th, Mr. T. Howard. 6th, Mr. R. Bealey. 7th, Mr. J. Pemberton.

Class G. Single Blooms.—Heavy Reds: Mr. J. Bleackley, 1st with Brunette; Mr. R. Lord, 2nd with John Smith, 3rd with Mrs. Dodwell; Mr. G. Geggie, 4th with John Smith; Mr. J. Chadwick, 5th with Seedling; Mr. S. Lord, 6th with John Smith.—*Light Reds:* Mr. R. Lord, 1st, 4th, 5th, and 6th with Thomas William; Mr. B. Simonite, 2nd with Seedling (Horner); Mr. R. Gorton, 3rd with Thomas William.—*Heavy Purples:* Mr. R. Lord, 1st with Muriel, 4th and 5th with Zerlina; Mr. G. Geggie, 2nd and 3rd with Zerlina; Mr. F. Law, 6th with the same.—*Light Purples:* Mr. R. Lord, 1st and 4th with Ann Lord; Mr. G. Geggie, 2nd with Mary; Mr. S. Barlow, 3rd with the same; Mr. F. Law, 5th with the same, and 6th with Minnie.—*Heavy Roses or Scarlets:* Mr. R. Lord, 1st and 2nd with Miss Horner; Mr. J. Chadwick, 3rd, 5th, and 6th with Seedlings; Mr. J. Whitham, 4th with Royal Visit.—*Light Roses or Scarlets:* Mr. R. Lord, 1st and 3rd with Miss Wood, 2nd with L'Elegant; Mr. R. Gorton, 4th with Ethel; Mr. S. Barlow, 5th with Beauty of Plumstead; Mr. B. Simonite, 6th with Seedling.

Premier Carnation: Master Fred S.B. (Hewitt).

Premier Picotee: Muriel H.Y.P. (Hewitt), in each case shown by Mr. Robert Lord.

SELF'S AND FANCIES.

Extra Class. 12 blooms, self colours only.—1st, Mr. R. Lord; 2nd, Mr. S. Barlow.

Extra Class. 12 blooms, fancies—run bizarre or any other combination, excluding self's.—1st Mr. R. Lord; 2nd, Mr. S. Barlow.

THE CONIFERS AT RIBSTON.

AT Ribston there is a choice collection of the hardier and most ornamental Conifers. I was therefore pleased to find on a recent visit there were not many of them much the worse for the late severe

winters which have proved so injurious to them in some places.

Here, as has happened in many other places, a great mistake was made in planting them too closely together. It would almost seem an act of Vandalism to cut any of them down, but sooner or later it will have to be done, and the sooner the better, or many of the most promising specimens will be irretrievably damaged. The difficulty will be, where there are two or three very beautiful specimens close together, to decide which to cut away. Ribston, like many other places, suffered much from the late severe winters, but the Conifers have so far recovered as to show very few marks of it.—M. SAUL, York.

APPLE TOM PUTT.

[PLATE 618.]

THIS truly handsome and beautiful Apple, although well-known and much cultivated in the western districts of the country, where cider apples abound, is yet, singularly enough, scarcely to be met with in other parts. Who ever sees "Tom Putt" in Covent Garden? and yet its fine bright colour, fair size, and fairly good quality ought, one would think, to find it a place there. If it would sell it would be sure to be cultivated, and if cultivated, or we might say cultivable, near the London markets, it would surely sell. Who will give it a fair trial? In Hereford and Worcester it is largely grown, and is nearly as popular there, according to *The Herefordshire Pomona*, as the Blenheim Orange. There are several other Apples, grown in Herefordshire, that very closely resemble Tom Putt, if they be not identical. In Devonshire it is known as "Tom Potter," which may probably be the correct or original name. However that cannot be now ascertained, its early history being lost in obscurity.

The fruit may be described as large, roundish, but tapering somewhat towards the eye, where it is much puckered or ribbed. Eye small, closed. Stalk slender, set in a slight cavity. Skin smooth, almost entirely covered with irregular stripes and blotches of bright scarlet. Flesh very white, tender, sweet, and somewhat perfumed. It cooks very well, and may be classed as a mid-season variety, and it is, moreover, a very free bearer.

It was largely exhibited at the National Apple Congress, Chiswick, 1883, from whence our specimens were obtained, and there is a good illustration of it in *The Herefordshire Pomona*.—A. F. B.

REGISTER OF NOVELTIES.

NEW PLANTS.

BILLBERGIA SANDERIANA, Morren (*La Belg. Hort.*, 1884, t. 1—2).—A brilliant acquisition to the showy genus of Bromeliads, it has long coriaceous strongly spinose leaves, and nodding scapes, bearing a lax elongate panicle of handsome flowers several together in the axils of rosy-pink bracts, the individual flowers two and a half inches long, with a greyish-green calyx tipped with blue, and a much extended corolla which is green below, yellow above, and heavily tipped with deep blue; the panicle being large and abundant flowered is very showy. It is a native of Brazil on the Serra de Novo Friburgo, in the province of Rio de Janeiro, and is one of the discoveries of Mr. A. Glaziou; F. Sander.

PHYLLOCALYX EDULIS, André (*Revue Hort.*, 1884, 348, with tab.).—A very interesting Myrtaceous shrub, with distichous oval or oboval-oblong coriaceous acuminate leaves, shortly stalked; the flowers are axillary or lateral, solitary, with four oblong foliaceous sepals, four perigynous petals, and numerous stamens. They are succeeded by oblong yellow fruits an inch and a half long, with about five strongly marked ribs and abundant fleshy pulp soft at maturity, with an acid vinous flavour on first ripening, exhaling a strong penetrating odour of pine-apple, and a fine aromatic taste. When fully matured it is much more than a curiosity, it is a very agreeable dessert fruit. It is not only a fruit-bearing but an ornamental tree, and may be made to fruit in the shape of a small tree grown in a pot. Brazil; Rio de Janeiro; French Gardens.

SALVIA DISCOLOR, Kunth (*Bot. Mag.*, t. 6772).—A remarkable species of Salvia lately brought into notice under the name of *S. nigricans* in allusion to its very dark purple flowers. It is a shrubby plant clothed with white tomentum, with petiolate ovate-oblong leaves green above and white beneath, terminal and whorled racemes of numerous flowers having the calyx cano-tomentose, and the flowers of a deep violet, the upper lip entire and the lower bifid. It is a distinct and striking plant for the greenhouse. Peru; H. Cannell & Sons.

YUCCA WHIPPLEI VIOLENCEA, André (*Revue Horticole*, 1884, 324, with tab.)—The ordinary form of this Yucca has the flowers white, as in the majority of the species. In the present variety which was grown in Jardin d'Acclimatation at Hyères, the flowers which are whitish towards the base have the upper portion of each petal of a deep purple violet. The flowers are large and numerous, and the plant must be regarded as one of great beauty; the anthers are purple; French gardens.

NEW FLOWERS.

BEGONIA Ruhm von Erfurt.—A double-flowered variety of the tuberous-rooted section, of a sturdy dwarf habit of growth and very free of bloom; the flowers fully double, of good form, and a vivid scarlet colour; 1st-class Certificate R.H.S., July 22. *Madame Arnoult*, of the same section and double-flowered, dwarf compact habit, and very free; colour clear salmon-rose, large, full, and well-formed flowers; extra fine; 1st-class Certificate R.H.S., August 12; H. Cannell & Sons.

CAMPANULA turbinata pelviformis.—A new variety, in which the flowers are almost flat instead of being cup-shaped, the colour pale lavender, very soft and pleasing; a good grower, dwarf, compact and very free; 1st-class Certificate R.H.S., July 22; Paul & Son.

CLEMATIS coccinea.—This comparatively new introduction was on the present occasion produced in much better form than we have ever seen it before; the flowers were twice the size of those usually

seen, and the colour very much brighter, being of a vivid crimson red. This fine variety had been growing in the open air at the Coombe Wood Nurseries, and its fine character may perhaps have resulted from its having been a seedling variety, though good cultivation may have had something to do with its development; 1st-class Certificate R.H.S., July 22; Veitch & Sons.

COLEUS Countess of Dudley.—A handsome variety, quite distinct from the many forms found in gardens; the large broad leaves are creamy white, veined and edged with bright green; 1st-class Certificate R.H.S., August 12; J. King.

GLADIOLUS hybridus Lafayette.—A fine and distinct hybrid form obtained by crossing *G. purpureo-auratus* with varieties of the *gandavensis* section. The flowers are larger than we have seen in any previous hybrid; the upper sepals are fawn-coloured, the lower three being blotched with crimson; 1st-class Certificate R.H.S., July 22; Veitch & Sons. *Lady Carrington*, a beautiful variety, one of many raised at Langport; the spike long, the flower large, handsomely formed, and of a beautiful rose-pink colour; a very fine variety for exhibition purposes; 1st-class Certificate R.H.S., August 12; Kelway & Son.

HIBISCUS Trionum.—This was shown as *Malva Knelleri*, but it is the Old Bladder-Ketmia of the Seed Catalogues; the large bell-shaped flowers are cream-coloured, with a conspicuous black blotch in the centre; unfortunately they are of very brief duration; 1st-class Certificate R.H.S., August 12; H. Cannell & Sons.

IXORA Westii.—A new beautiful and distinct seedling variety, of excellent habit, very fine, and possessing all the essential qualities belonging to a good Ixora, while the colour is quite distinct; the flower buds are beautiful rose-pink, while the fully expanded blossoms are delicate blush; 1st-class Certificate R.H.S., August 12; Veitch & Sons.

LATHYRUS latifolius delicatus.—A lovely variety of the Everlasting Pea, the colour of the flowers being delicate pink, shaded here and there with white, and exquisitely pencilled with deep pink veins; really a valuable hardy perennial; 1st-class Certificate R.H.S., July 22; R. Dean.

MONTBRETIA elegans.—A new hybrid variety between *M. Pottsi* and *M. crocosmaeflorae*; the flowers are expanded, and are brighter in colour than those of the latter; 1st-class Certificate R.H.S., August 12; New Plant and Bulb Company.

PELARGONIUM Madame Thibaut.—A very fine Ivy-leaved variety, with large trusses of very double flowers of a glowing carmine rose colour, and one of the finest of the section yet raised; 1st-class Certificate R.H.S., July 22; W. Bealby.

PRIMULA Rusbyi.—A pretty and interesting species from the United States of America; the leaves are long and serrated, the flowers pale pink deepening to rose, and reminding one of a miniature Phlox *Drummondii*; 1st-class Certificate R.H.S., July 22; R. Dean.

PRUNUS Pissardi.—A variety of *P. cerasifera*, having the foliage of a deep purple red. Should this prove perfectly hardy, it will become a very valuable ornamental plant; 1st-class Certificate R.H.S., July 22; Veitch & Sons.

RHODODENDRON Empress.—A very handsome variety of the Javanese section; the flowers, which are large and of fine shape, being salmon pink inclining to orange, with a distinct ring of white on the margins of the segments; 1st-class Certificate R.H.S., July 22; Veitch & Sons.

ROSA lucida, *Rose Button*.—A charming little rose, quite distinct in character, being a double flowered variety of a species now seldom seen in gardens; the flowers are small and very double, like

those of a miniature Balsam, the colour deep rose inclining to purple; very fine and effective; 1st-class Certificate R.H.S., July 22; Veitch & Sons.

ROSE (Tea) Madam Eugène Verdier.—A beautiful new Tea-scented variety, possessing all the good qualities of the parent, the popular Gloire de Dijon; in a half expanded state the flowers are lovely, both shape and substance being good, the colour rich yellow, inclining to apricot in the centre; 1st-class Certificate R.H.S., July 22; Paul & Son.

SPIREA bullata.—A small species, quite dwarf, the leaves small and wrinkled, and the branches terminated with clusters of deep carmine flowers; 1st-class Certificate R.H.S., July 22; Paul & Son.

TIGRIDIA Pavonia alba.—The white variety of the well-known Tiger flower, the blossoms white, handsomely marked in the centre; very fine and distinct; 1st-class Certificate R.H.S., August 12; New Plant and Bulb Company, and H. Cannell & Sons.

NEW FRUITS.

APPLE SOUVENIR D'ETICHOVE.—A variety brought into notice by M. Ch. van Seymortier, of Etichove, and by his desire named as above. The variety is about 25 years old, but is yet little known, though the fruits are both beautiful and delicious. The fruit has a very fine, yellowish, lumpy flesh, and holds a position between the sweet and the acid apples. It is of an odd (bizarre) and very distinct colouring, being marked with broad bands of purplish red on yellowish green ground, which give it the most singular aspect. It is slightly ribbed around the eye after the fashion of the Calvilles; it ripens in September, and keeps in maturity without losing any of its good qualities up till February or March—a peculiarity which will make this fruit much sought after. It will be distributed by M. F. Burvenich.

PLUM REINE CLAUDE DE BRAHY.—A figure of this plum is published in the March number of the *Bulletin d'Arboriculture, &c.* (p. 65). The fruit is very large, round, with a plainly marked suture; stalk short, deeply set. Skin yellowish-green, covered with a very fine bloom. Flesh fine golden yellow, juicy, tender, melting and very sugary, with a delicious flavour, the stone adherent. It is grown by M. Camille Thierpont, formerly burgomaster of Etichove, near Renaix. M. Rodigas suggests it may have been raised by, or named after M. Brahy-Ekenholm, an amateur cultivator of trees and herbaceous plants at Herstal, near Liége. M. Thierpont states that the tree is vigorous, of constant fertility without being excessive. The variety is a later one, and sometimes the fruit does not ripen. It keeps on the tree until the first frosts. I have gathered it, he says, on November 15.

PEAR STRIPED BEURRÉ D'AMANLIS.—The peculiarity of this variety consists in the presence of a variable number of broad reddish streaks extending lengthwise round the pear, and giving it a striking appearance. The good qualities of the variety are in no wise less in it than in the type. Of this handsome sort a good figure has recently been given in the *Bulletin d'Arboriculture*.

PEAR BEURRÉ ROYAL DE TURIN (*Bulletin d'Arboriculture*, May, 1884).—A variety bearing fruit very much like that of Doyenné d'Hiver. It was raised in the nurseries of MM. Simon-Louis at Metz, and is spoken of as a superb pear of great merit as to quality and productiveness. Its season is October and November. It is a large obovate fruit, a little oblique at the base, with a thick, short stalk, and slightly depressed eye. The skin is yellow, speckled with russety spots; the flesh melting, sugary and pleasantly acidulous.

NEW PUBLICATIONS.

The GARDENERS' CHRONICLE (July 12—Aug. 16) contains *Epidendrum Christyanum*, Rchb. f. (p.

38), a botanical curiosity related to *E. glaucum*, with long pyriform diphylloous pseudobulbs, and erect racemes of greenish and brown flowers; Bolivia; T. Christy, Esq.—*Masdevallia Gairiana*, Rchb. f. (p. 38), a hybrid between *Veitchiana* and *Davisii*, with intermediate foliage, and reddish orange flowers, the odd sepal excluding the narrow tail covered with mauve warts and similar warts less dense occur on the outside basilar margin of the lateral sepal; Messrs. Veitch.—*Houlebia odoratissima xanthina*, Rchb. f. (p. 38), a fine showy Orchid with orange-yellow flowers, having a sulphur and white lip; Baron Hruby.—*Liparis decursiva*, Rchb. f. (p. 38), a terrestrial Orchid, with short pseudobulbs, cuneate oblong leaves, and racemes of small green flowers; India; Mr. F. W. Moore, Glasnevin.—*Oncidium tricuspidatum*, Rchb. f. (p. 71), a pretty plant with narrow wrinkled one-leaved pseudobulbs, cuneate oblong-acute leaves, and panicles of flowers having orange sepals and sulphur petals.—*Cattleya guttata Williamsii*, Rchb. f. (p. 71), a fine variety with the purplish sepals and petals spotless, and a white lip with a dark purple front portion; W. Lee, Esq.—*Crinum Sanderianum*, Baker (p. 102), a distinct new Crinum, allied to *C. zeylanicum*, having globose bulbs two inches in diameter, ensiform leaves 1—1½ feet long, and umbels of 3—4 sessile flowers which are white, each of the six segments of the perianth having a conspicuous red keel; Sierra Leone; F. Sander & Co.—*Eulophia pulchra divergens*, Rchb. f. (p. 102), a beautiful new variety, with the lip broader in front, and going out into two diverging retuse shanks; received under the name of *Cymbidium rhodocharis*; W. Vanner, Esq.—*Aërides Sanderianum*, Rchb. f. (p. 134), a grand species, of vigorous habit, with short broad leaves retusely bilobed at the end, and long numerous crowded racemes of flowers, which from a water-colour sketch, have white sepals and petals with purple tips, a great yellow lip with the end of the spur green, and a fine purple middle lobe, all the segments of the lip denticulate and wavy; allied to *A. Lawrenciae*; Eastern Asia; F. Sander & Co.—*Cypripedium Lindleyanum*, R. Schomb. (p. 142), a fine species of Lady's Slipper, described nearly half a century ago, but just introduced in the living state; it has smooth green leaves, and panicle stems 2 feet high, of a brownish-red colour, the sepals and petals red-brown with darker veins, the lip green, the staminode yellow covered with stiff hairs; Guiana; F. Sander & Co.—*Balbophyllum Sillemianum*, Rchb. f. (p. 166), an elegant creeping species of the *Sarcopodium* group, with nearly spherical pseudobulbs, ligulate acute leaves, and orange flowers having the lip mauve above whitish beneath; Burmah; A. Sillem, Esq.—*Dyckia leptostachya*, Baker (p. 198), a Bromeliad allied to *D. rariflora*, but more robust, with rigid lanceolate acuminate lepidote spiny leaves, and tall slender peduncles bearing a spike of a score or more of bright scarlet flowers; Paraguay; Kew.

THE GRAPES AT RIBSTON.

FOR a long time Ribston has been famous for its Grapes. For thirty-five years I have seldom missed each season going to see the Grapes and the many other things worthy of inspection which Mr. Jones, Mr. Dent's clever and intelligent gardener, has to show. Having lately paid a visit to this place I was pleased to see that the Grapes were splendid. The Muscat house especially was a fine sight. Fine bunches,

well set, and judiciously thinned, the foliage healthy and clean ; there was no doubt such Grapes would finish off grandly, when they would be a grand sight. The Hamburgs all through were superb—large fine bunches, good berries, and a splendid colour. Taking the grapes all round I never saw them better.—
M. SAUL, York.

RAISING AURICULA SEEDS.

WHEN visiting Mr. Samuel Barlow in the early summer of 1883, I found he was adopting a somewhat novel method of raising Auricula Seeds. The pans or pots in which the seeds were sown were filled partly with crocks and rough sods, and on the surface was placed a layer of very fine ashes from the back of a blacksmith's forge. In this the seeds were sown, being thinly scattered over the surface, and pressed into it. The pots or pans were then stood in a vessel containing water, and it is surprising how quickly the seeds germinated ; but it is necessary that as soon as the plants are large enough to handle, they must be pricked off into pots of light sandy soil. I have this season sown some seeds saved in 1883 in pots of light sandy soil, and placed them in pans of water, with a piece of glass over them, and the seeds have germinated much more quickly than is usual in my experience. There is one great advantage, it is not necessary to water the soil overhead, and this is always a risky experiment, as the seeds, being very small, and lying on the surface, are apt to be washed away when water is applied.—R. DEAN.

THE FRUIT CROPS OF 1884.

THE returns of the fruit crops, which we publish from all parts of Great Britain, are, we fear, not calculated to revive the hopes of the gardener or farmer who trusts to fruit growing to counterbalance his losses in other directions. It is true that there are exceptions here and there, but on the whole we can but record a failure. One special exception we have to note this year, and, indeed, generally—the small and soft fruits, Currants, Raspberries, Gooseberries, and Strawberries are mostly abundant ; and if some of these do not travel well, others present no difficulty in this way. The soft fruit may readily be turned into jam on the spot, and

the evil effects of a glut in the market or of bruising in carriage may thus be averted.

There is little doubt as to the cause of the present scanty fruit crop. It is the old story of spring frosts. The wood and buds were ripened well last autumn, and everything promised a full crop, the tender leaves of Hope were put forth, the next day came a frost—"a killing frost." This is so common an occurrence that it may almost be looked on as the normal state with which fruit growers have to reckon. Foreign competition will probably be severe, the more so as we hear that much of the fruit which would, under ordinary circumstances, be consumed in Paris is likely to be sent over here, as the fear of cholera has very materially lessened the demand in the French towns. Incidentally it may be said that fruit, even if unripe or over-ripe, cannot of itself produce cholera, and that those who partake in moderation of wholesome fruit, as reasonable persons should do, need not be under the slightest apprehension that they will thereby be rendering themselves more liable to cholera, or, indeed, to any other disease whatever.

As a general summary of the condition of the fruit crops past, present, and prospective, we may say that :—

APRICOTS are under average, except in Lincolnshire and a few of the Midland Counties.

PLUMS are under average almost everywhere.

CHERRIES have yielded a good average.

PEACHES and NECTARINES (out-of-doors) are under average, except in the Southern and Western Counties, where the crops are about an average.

APPLES are under average almost everywhere ; a few localities only claim "An average."

PEARS are under average everywhere.

SMALL FRUITS are a very good average, or perhaps a little over average.

STRAWBERRIES were over average and fine in quality, but were soon over, from the effect of heat.

NUTS are under average in Scotland and the Northern Counties of England ; in the Midland and Southern Counties somewhat better crops are reported, though in some parts of Kent Nuts are conspicuous by their absence.

WALNUTS seem rather more abundant.

With the certain prospect that there will be little autumn fruit to gather, and assured of the worst, fruit growers are naturally thinking now of the outlook for the coming year. Business men, great as may be their losses from time to time, cannot afford to despair. It is wisest to accept the inevitable and to make the best of a bad condition, still looking hopefully for better things in time. The growers argue, two such disasters can hardly happen in successive seasons. Therefore the probable fruitfulness or otherwise of all kinds of hardy fruit-trees naturally forms an interesting subject of observation, and having regard to the absence of check to abundant growth because of the lack of fruit, we see the grower absolutely rejoicing at the long-continued drought, or comparative drought; for throughout the Midland and Southern Counties, at least, no rain has fallen that can in any way materially affect the roots of the trees. They reason that a flood of moisture just now would promote such an activity of vegetation as to endanger the now forming and ripening buds on the wood, and possibly produce an abnormal autumn growth that would prove most injurious. Ample wood has already been produced, and the one great need is the thorough ripening of what is formed. This continued dryness for a few weeks longer will materially aid, whilst there is yet ample life and vigour in the trees, to create and mature fruit-buds—indeed, these are already plentiful and stout, so that whatever may be the result another year (should all things go well during the remainder of the present season), there will be no lack of bloom, and without that factor fruit crops cannot possibly follow.

OF THE POTATO CROP the reports received from many diverse quarters of the United Kingdom show that there is a comparative absence of disease, while the wide area of the drought will result in reduced produce in all early kinds. The late sorts are everywhere showing luxuriant growth, and, so far, little or no evidence of supertuberation. Thus all things point to a splendid crop, and through that a notable addition to the food of the people. To have reached the end of July with reports of disease seen of only the most inconsiderable kind, shows a circumstance in the history of modern Potato culture well worthy of comment. There is every prospect that, with a good corn crop, one of the best for many years, we shall see a wondrous Potato produce, and these two things combined must help to keep food cheap through the winter.—(*Gardeners' Chronicle.*)

FUCHSIAS ON RAFTERS.

FEW plants contribute more to the gaiety of the conservatory or flower garden than the Fuchsia; few plants are more generally grown; and there are few plants more largely cultivated for decorative purposes. The varieties now extant are so numerous that there is difficulty in making a selection.

The Fuchsia is generally grown either as a pyramid or bush, but to see it in perfection it must be trained up a rafter in a cool house. There is no better way of showing its fine rich pendant flowers to advantage than to train it up the rafters. I have nowhere seen them better done in this way than they are in the Gardens of Ribston Park, where they are grown to perfection. They have been planted out more than twenty years, and are now large plants, chiefly of old varieties, such as Rose of Castile and Venus de Medici, there being several plants of the latter. Standing at either end of the conservatory and taking its full length into view, the sight is most beautiful and striking; the profusion of flowers is astonishing. Some of the visitors to Harrogate who see over the grounds at Ribston, which are open to the public one day in the week, through the kindness and liberality of the proprietor, Mr. Dent, will not soon forget this beautiful sight.—M. SAUL, York.

SELAGINELLA VIRIDANGULA.

A NEW species of Club-moss, introduced from the South Sea Islands by Mr. B. S. Williams, of Holloway, to whom we are indebted for the accompanying illustrations. It is one of the climbing species, with the habit of *S. Willdenovii*, long known in gardens under the unauthorised name of *S. cæsia arborea*, but differing in sundry details of structure. It bears also some degree of resemblance to *S. canaliculata*, a fine Indian and Oceanic species introduced both by Mr. W. Bull and Messrs. Veitch of Chelsea. The presence of these three scendent species in our gardens furnishes useful material for the tasteful planting and furnishing of tropical ferneries; and the species we now figure is by no means the least elegant when in a fully developed condition, the long tail-like spikes of fructifi-

cations forming an elegant fringe to the fronds.

Selaginella viridangula, so named by Spring the monographer of the Lycopods, has terete stems, which grow up some few feet in height,



SELAGINELLA VIRIDANGULA IN ITS EARLIER PHASE OF GROWTH.



SELAGINELLA VIRIDANGULA, PORTION OF A MATURE FRUCTIFIED FROND.

and are freely branched, the branches having more or less the character of handsome divided fern fronds. The main stems bear scattered but distinct leaves, while the alternate branches, which in the specimens before us

are a foot or more in length, are divided into ovate pinnae some four to six inches long, the rachides and ramifications of which are clothed with rather small close-set distichously arranged obliquely oblong lanceolate leaves of a deep green colour, the intermediate ones lying along the upper side of the stem, being much smaller. The pinnae are twice pinnately divided, and in the fully developed fertile condition the ultimate divisions all terminate in long elegantly quadrangular spikelets of fructifications, which in their general appearance resemble those of *S. Willdenovii*, but have the little four-ranked bracts long and acuminate pointed, instead of being short and bluntly ovate.

It is a very nice addition to this family of plants, which furnishes many decorative plants of real value to the gardener. It of course requires to be grown in a moist stove.—T. MOORE.

GARDEN GOSSIP.

IN THE IVY-LEAVED PELARGONIUMS we have the last of the divisions of the Pelargonium family taken in hand by the florist, and with them the improvement effected has been rapid and marked in the character of the individual flowers, but still more so in their freedom of flowering. Their continuous disposition to bloom is not the least of their good properties; another thing in their favour is that the varieties now in existence afford a greater proportion of soft colours than the zonals. As flowering plants for hanging-baskets they have few equals, neither have they for window boxes, in which they may be used with very telling effect. The double flowered varieties are excellent for this sort of work, the following being amongst the best:—Abel Carrière, flowers large, colour magenta, feathered with marron; La Rosière, soft rose; Jeanne

d'Arc, white, suffused with lavender; Congo, lilac, with silvery-white edges; Vicountess Cranbrook, rose, shaded with white; Isidore Féral, light rose; Mrs. Moore, white, edged with lilac and crimson; M. Pasteur, pink, shaded with magenta; to which may be added Comtesse Horace de Choiseul, a warm rose, with brilliant satiny surface,

— THE new SWEET PEAS raised by Mr. Eckford are making their way in public favour. In the fine soil of Boreatton Park, Baschurch, the flowers attain a large size, and are richly coloured, and Mr. Eckford must be commended for his persistent attempts to add to our lists. The leading ones are as follows:—*Imperial Blue*, rich deep blue, flushed with purple on the crest—very fine and distinct; *Purple King*, bright plum-purple crest and bright blue wings—very fine and distinct; *Cardinal*, a fine and striking variety in the way of Invincible Scarlet, and with a pleasing flush of purple on the wings; *Queen of the Isles*, the crest scarlet, with white markings and flakes at the sides, the wings white, flaked with rosy-purple—very pretty and pleasing; *Princess of Wales*, white, dashed and flaked with bright blue—large and very pretty; and *Isa Eckford*, fleshy-pink crest, the wings almost white—very delicate and pretty. In addition to the size and substance of the flowers, they are richly fragrant.

— THE cumbrous name of DÆDALACANTHUS NERVOUS has been imposed on *Eranthemum nervosum*, a very old inhabitant of our stoves and valuable for two reasons—it is winter-flowering, and it has blue flowers, the latter set off by the white veined bracts. Though of shrubby habit, it may be flowered in quite a young state. Like many other good things, it has been elbowed out by things of less interest, but more suitable for cutting or for room decoration. Its culture is of the simplest. Those who are addicted to microscopical pursuits will find the pollen-grains very elegant and peculiar.

— OF THE NORTH AMERICAN PINES, known popularly in the United States as the White Pine, Yellow Pine, Red Pine, and Pitch Pine, the Red Pine is *Pinus resinosa*, and occurs from Maine to Pennsylvania, westward to Wisconsin, and northwards. It is a tree of 50 feet to 80 feet high, belonging to the Scotch Pine section, with leaves in twos, and has reddish and rather smooth bark; the cones are about two inches long, and sometimes aggregated in large and close clusters; it has been erroneously called the Norway Pine. The colloquial names, mentioned above, all occur in North America, and most of them represent more than one species of Pine, for they have been carried with them by the settlers to California, and there applied to other trees of allied nature which occur there. The White Pine is the name applied to the Weymouth Pine (*P. Strobus*), and in California it is transferred to *Pinus monticola*. The Yellow Pine is the name applied to *Pinus mitis*, which occurs in the southern parts of Eastern America, on dry and sandy soil, and reaches westward from New Jersey to Wisconsin. This is a valuable timber, durable, fine-grained, and fitted for flooring, &c. In California, the name Yellow Pine is usually applied to the *Pinus ponderosa*. The Pitch Pine is *Pinus rigida*. It extends along the eastern coast of North America, from Maine to the west of New York, and southwards, common on spare sandy rocky soil. This species belongs to the section with leaves in threes. The *Pinus australis*, also, is sometimes erroneously called the Pitch Pine.—*Woods and Forests.*

— THE subject of GARDENING FOR CHILDREN is receiving attention in *Little Folks Magazine* for the benefit of those boys and girls who have their own little gardens, a series of notes being

published therein each month by a practical writer under the title of "The Children's Own Garden, and What to Do in it."

— MR. ALLEN regards EULALIA JAPONICA, and its varieties, VARIEGATA AND ZEBRINA, which are grown by him in immense quantities, the most ornamental of all the grasses, and considers cut sprays of their foliage indispensable for summer floral-work.

— SOME experiments on GROWING PLANTS WITHOUT EARTH have been made during the present year by Mr. W. Sowerby at the Royal Botanic Society's Garden, in the Regent's Park. and are thus recorded in the Society's *Quarterly Record*:—"The items necessary to sustaining vegetable vitality and growth are, 1, light; 2, air; 3, water. 'Earth' in its vast variety of forms or the compound known under that name is but an adjunct, not a necessity. . . . We placed two specimens of Scarlet Pelargoniums in garden pots, one filled with Dumcsnil's fertilised moss, and the other with fresh clean ordinary moss, both without any earth or admixture of any kind; all the soil was carefully washed from the roots of the plants; they suffered little by the change, and after a few weeks' growth there appears but little difference in the two plants; they both look as well and healthy, if not better, than those of a like kind growing as usual in earth. On the 7th February, seedlings of the common Lupin were planted in a small pot filled with broken window-glass, the pieces varying in size from that of coarse sand to an inch square, and other seedlings of the same age and plant in a similar pot filled with boys' stone toy marbles; in both cases the pots were placed in saucers of water, the water reaching nearly half-an-inch upwards from the bottom of the pot; nothing has since been supplied except water, and at the present moment one of the plants in the pot of broken glass is in flower, and appears as if grown in the ordinary way. Those in the pot of marbles did not get on so well, and died after about two months, in consequence, I think, of the spherical form of the marbles allowing them only to touch each other by points, thus not holding so large an amount of water amongst them as the broad flat surface of the pieces of glass."

— TO obtain a good sample of ONIONS for PICKLING, the *Irish Farmer's Gazette* recommends the following plan:—For pickled onions, good taste requires a small even-sized well-formed bulb, with all the age, and ripeness, and flavour of those of fullsize. These important points are secured in the following manner:—Take the thinnings of an ordinary onion bed and heel them very thickly in rows in a dry, sandy corner. All these will grow into small bulbs, and when the leaves begin to wither away the crop may be taken up and exposed to the sunshine, when it will be found, if the work has been duly performed, and the weather has been congenial, that a crop of picklers of good form, even, and small-sized will be the result.

— RECENTLY some colossal samples of TODEA BARBARA have been brought from its seclusion in the Dandenong Ranges, near Port Philip. The stump-like trunk of one, after the removal of its hundreds of fronds, weighed 2,900 lb.; it required to be dragged out of its recess by a train of oxen. The monster fern is to be placed in the conservatory of Melbourne, where the mycologist, the Rev. Heinrich Tode, so long laboured for the

Church and for science also, and where his mortal remains are buried. A correspondent adds the following rider evidently suggested by the generic name:—" *Toadya speciosa* var. *Cringerii*. This variety is a parasite, forming sponge-like excrescences on the big (k)nobs of old genealogical trees. It is found at high levels in most parts of the world, is of decumbent habit, never quite upright, and when well established in a warm place frequently develops a crest."—C. T. D.

FOR winter flowering the BOUARDIAS stand in the front position; their free and continuous habit of blooming and the fragrance of their flowers, which are alike suitable for decorative use in the conservatory or for cutting, being qualities of which few other plants can boast. The best method of culture is afforded by the planting out system. The cuttings should be struck in winter, or early in spring, potted off as soon as rooted, stopped once or twice early, and then turned out in pits or frames in well prepared soil; they require but little attention beyond water and air during the season, but grow on and become furnished at the bottom with blooming shoots, besides a number of strong stout growths from 15 to 20 inches high, which give the large trusses of bloom and keep on in succession, as they flower at six or eight joints below the leading bunch, continuing as long as the plants receive warmth enough. The plants are taken up and potted in autumn, just as they are coming into flower, and kept in a mild growing temperature, which must be increased as the weather gets colder.

SPINACH is not often transplanted—as recommended by a correspondent of the *Farmer's Gazette*, who writes of the Prickly-leaved or Winter Spinach—" We have two patches; one, the original seed-bed which was drilled too thickly; the other the transplanted thinnings from the former. When we advised our gardener to transplant it he declared he had never heard of its being transplanted, but the result quite astonished him, as we have gathered from it fine, green, succulent leaves over 1½ feet long and 11 inches wide, whereas the untransplanted is hardly half the size. This planted-out bed lasted so much better than the first that it kept us well supplied quite through early spring into summer. The poor complain that this vegetable is watery and insipid, but poor cooks usually spoil spinach in water; it boils best in its own natural juices, which are then not dissipated and strained off, and it needs no more than to be well stirred with a spoon, after which it may be chopped, and in a few minutes it is ready for the table. Anyhow, it is a nice, agreeable, wholesome, cheap vegetable."

PROBABLY the finest collection of ARAUCARIAS ever brought together at one show was that exhibited by Mr. Fr. Siesmayer, at the recent International gathering at St. Petersburgh, from the Tauride Imperial Gardens. It included twenty-eight reputedly distinct kinds, and the majority of them were quite distinct for garden purposes. *A. brasiliensis pendula*, 20 feet high, was very good, the branches beneath the leader pointing straight to the earth. *A. excelsa pendula* was also gracefully pendulous. *A. Regelii*, which is very bright green in colour, and densely furnished with branchlets, which curved downwards, was one of the most effective. *A. Van Geertii* with Lycopodium-like branchlets is one of the most distinct, while those named *President Greig*, *Napolcon Baumann*, *Waranzowi*, and *Niepraschki*, were also noble

kinds. One never sees such an interesting collection brought together in this country.

THE BLOOMSDALE PEARL ONION is highly spoken of by Messrs. Landreth & Sons of Philadelphia as a rapid growing and mild variety attaining a weight of 1 lb. 10 oz. The flesh is white, translucent, delicate, and so free from astringent oil that the bulbs can be eaten uncooked as freely as apples. Mr. Meehan endorses this.

THERE are many advantages in the use of HARDY SHRUBS FOR BEDDING, not the least being that the beds are kept constantly filled. In this direction it has been pointed out that one of the prettiest possible arrangements for the winter effect in the pleasure grounds or flower garden, and one that is very little affected by the weather, however severe, is a bed of *Golden Queen Holly* edged with a good broad band of *Erica carnea*; when the Erica is in bloom, the effect is charming. A bed like this might be left undisturbed for years as it looks well at all times, and is equally effective whether isolated or grouped.

THE fine DRACÉNA LINDEI, which has flowered at Kew, proves to be, as was supposed, a variety of the old *Dracæna fragrans* (*Bot. Mag.*, 1081). The lanceolate elliptic gracefully arching leaves render the plant valuable for decorative purposes, but chiefly so when in a comparatively small state, and well furnished with foliage. The old plants are apt to lose their lower leaves and become ungainly, although even in that condition the plant is well worth its room in a large warm conservatory for the sake of the delicious fragrance of its flowers. The inflorescence, with its shortened branches and densely capitate clusters of flowers is the same as in the type.

IN our last volume we mentioned the PRESENTATION to MR. BARRON of a handsome gold watch for his services in connection with the Apple Congress at Chiswick. Unfortunately this watch was stolen from him at South Kensington Station. Recently some of Mr. Barron's many friends determined to make good this loss, and accordingly another handsome watch and chain was given to him by gentlemen connected with the Health Exhibition. The compliment has been well earned.

ON his removing to Witley Court, Mr. Austen had a handsome oak sideboard, together with an album of portraits, presented to him on the occasion of his leaving the gardens at Aslton Court, near Bristol. The presentation was made by Mr. Webley, the secretary of the Bristol Chrysanthemum Society, at a dinner at which a large number of Mr. Austen's friends and colleagues were present.

In Memoriam.

MR. GEORGE WESTLAND, gardener to the Earl of Dudley at Witley Court, died on the 29th of May after a long illness. He was one of the most prominent flower gardeners of the present generation, and carried out the grand design of Mr. Nesfield with great success. He was formerly a frequent contributor to our pages, and was held in esteem by his many friends and professional acquaintances.



Cypripedium calurum.

11. med. G. Serre. 1878

CYPRIPEDIUM CALURUM.

[PLATE 619.]

CONE of the charming hybrid Lady's Slippers for which Orchid growers are indebted to Messrs. Veitch & Sons, of Chelsea.

It is the produce of *C. longifolium* crossed by *C. Sedeli*, and is a noble plant, apparently as free-growing as *C. longifolium* itself. This vigour of growth is, indeed, a remarkable characteristic, and not the least of the merits of these hybrid novelties.

The plant forms a thick tuft of elongate channelled acute green leaves, from amongst which spring up the tall branched brownish-red stems, each bearing several flowers in succession. These flowers, as will be seen by our figure, are large, being five inches in their lateral and three and a half inches in their vertical expansion. The dorsal sepal is oblong ovate, pale green, with longitudinal purplish ribs, and slightly flushed on the outside with red ; the united lower sepals are broadly ovate and much smaller. The petals are broadest at the base, narrowing to the apex, two and a half inches long, curled, pale green

in the centre at the base with an edge of rosy-red on each side an eighth of an inch broad, which meets towards the apex where it is wholly bright rosy-red : the colour deeper and more glossy on the outer surface. The lip is very bold and conspicuous, oblong obtuse, nearly two inches long, of a deep rosy-red flushed with brown in front, paler behind, the sides deeply inflexed with a roundish projecting lobe at the front angle of the aperture, creamy-white with irregular spots of rosy purple, the inside of the pouch being more distinctly spotted. The staminode is greenish-white, clothed with short stiff hairs, transversely oblong or reniform with an apiculus, and having a fringe of dark purple hairs on the front margin, the sterile lobe roundish fleshy greenish-white and hairy.

No more beautiful subject can be imagined than a well-bloomed specimen of this and its kindred hybrids, some further notice of which will be found at page 8 of the present volume.

—T. MOORE.

COOL TREATMENT

FOR TREE FERNS.

ATOO prevalent opinion seems to exist regarding the atmospheric conditions requisite for the well-being of stove and greenhouse Ferns generally, especially the tree-like species that succeed in a greenhouse temperature, namely, that they want a large amount of moisture in the atmosphere —really more than is good for them. When the different arborescent kinds were first introduced to this country in quantity sufficient to allow cultivators to become fairly acquainted with them, the general impression was that they required more warmth to keep them in a thriving condition than they need with a vapoury state of the atmosphere around them. The result of this was that the air of the house in which they were located during the season of growth, was often kept at the point of saturation ; and in many cases this line of cultivation has been to some extent continued, through which the fronds attain undue dimensions, and overgrow the smaller kinds near them, the plants often growing to a size such as makes them too big for the houses in which they are kept, the heads becoming dispropor-

tionately large compared with the stems, with the still further inconvenience that the plants, like all others when kept in an atmosphere more humid than they require, are less enduring in their leaves and are much more liable to become a prey to insects.

Such species as *Alsophila australis*, *Cyathea dealbata*, *C. medullaris*, *C. Smithii*, *Dicksonia antarctica*, and *D. squarrosa*, need little more moisture in the atmosphere than ordinary greenhouse plants. In common with other Ferns, these tree kinds require plenty of water to the roots so as to keep the soil quite moist, particularly through the season of growth ; never, even during the winter when at rest should they be allowed to get so dry as most plants will bear. Neither is there anything gained by the daily syringing of the stems often practised, and which is quite unnecessary, except in the case of newly imported plants which are usually nothing more than bare, rootless, and frondless trunks.

Another mistake in the cultivation of Tree Ferns is giving them more root room than they require ; it is no unusual thing to see

them put in tubs or boxes twice or three times the size there is any necessity for, and which, where the atmosphere is kept at all in an over-humid condition as already spoken of, further aggravates their too rampant growth.

Tree Ferns can be kept for years in a thriving condition with less root room than most things, providing they are well supplied through the growing season with manure water, of which they are remarkably fond. Efficient drainage as a matter of course is an essential to their continuing in health, and the soil should always have a liberal amount of broken crocks, charcoal, or cinders added to it. As to soil they are not particular; good fresh turf-y loam moderately open in texture, or peat, will answer, with sand in proportion to its nature.

—T. BAINES.

THE GRAND NATIONAL DAHLIA SHOW.

ACCORDING to the concurrent testimony of eye-witnesses, this was decidedly the best of the three shows held in conjunction with the authorities of the Crystal Palace in 1882, 1883, and 1884. The entries were more numerous, and there were fewer defaulters, notwithstanding that the hot weather and the attendant thrips had been very trying to exhibitors in the Southern districts. In most cases these obstacles had been met and conquered, and the consequence was that first-class flowers were plentiful—so plentiful indeed that for want of tent space, as some of the principal growers averred, the show was not so effective in the setting up as it might have been.

In the Nurserymen's classes there were 3 exhibitors of 48 blooms, 8 of 24 blooms, and 6 of 12 blooms in the section of show flowers; and 3 of 24 blooms, and 11 of 12 blooms of fancy flowers. The Amateurs mustered 8 stands of 24 blooms, 15 stands of 12 blooms, and 8 stands of 6 blooms in the show flowers; and 9 of 12 blooms, 15 of 6 blooms in the fancy class. These of course formed the backbone of the show, and it will be seen there was no lack of material, the quality of which was fully above the average. In the Open classes there were 3 lots of 24 Pompons, 6 lots of 12, and 6 lots of 6. The single varieties brought a contingent of 5 lots of 12 blooms, and 8 lots of 6 blooms.

The Veitch Memorial Trustees offered on this occasion a Veitch Memorial Medal, with its £5 prize, for the best collection of 12 show and 6 fancy Dahlias. This was well won by Mr. H. Glasscock, of Bishop's Stortford, with a splendid collection, the sorts being of show sorts, Imperial, Hon. Mrs. Percy Wyndham, Rev. J. Goodday, Miss Cannell, Shirley Hibberd, Countess of Ravensworth, Sir G. Wolseley, Prince of Denmark, Harrison Weir, Black Knight, Flag of Truce; and of fancies, Barnaby Rudge, Chorister, Professor Fawcett, Mrs. Saunders, Miss Lily Large, and Wizard. We congratulate Mr. Glasscock on his success, which indeed was conspicuous in other parts of the show.

The contest for the best bloom in the exhibition—Show and Fancy—is usually exciting, but on this occasion seems to have been almost a foregone conclusion. A splendid bloom of Mrs. Gladstone in Mr. Glasscock's collection had been noticed from the first, and was ultimately selected as the queen amongst the show varieties; while General Gordon, a new variety, shown for the first time by Messrs. Keynes, of Salisbury, was chosen as the best fancy. Both were new sorts, the one of last year, the other of this season. After this let the cavillers say there is no improvement going on in the Dahlia. Who will heed them?

Our space will not permit us to give the whole prize list, but we must find room for the principal collections shown by amateurs and nurserymen.

Class A. 48 show varieties (Nurserymen).—Mr. C. Turner, Slough, was 1st with a very even lot of blooms of large size, and in fine condition; they were the Rev. J. Goodday, Mrs. Gladstone, Lord Chelmsford, Constance, Burgundy, Lady Wimborne, Herbert Turner, John Wyatt, Ethel Britton, William Rawlings, Mrs. Harris, Ruby Gem, Mrs. Torman, James Stevens, Acme of Perfection, Alex. Cramond, Goldfinder, Michael Saunders, Mrs. G. R. Jeffery, Rosetta, Condor, Imperial, Hope, Flag of Truce, Seraph, Lady Gladys Herbert, James Vick, John Standish, Julia Wyatt, George Rawlings, Joseph Ashby, Muriel, Henry Bond, James Service, Statesman, Hon. Mrs. P. Wyndham, Champion Rollo, Henry Walton, Prince of Denmark, Mrs. Shirley Hibberd, Jas. Cocker, J. N. Keynes, Cardinal, Royal Queen, Sir G. Wolseley, Clara, Sunbeam, and J. B. Service. Messrs. Keynes, Salisbury, were placed 2nd with a really good collection, comprising some good new and distinct varieties, prominent among them being Mrs. P. Wyndham, Mrs. Dodds, Clara, Joseph Ashby, Mrs. Stancombe, James O'Brien, Wm. Rawlings, Hon. Sydney Herbert, Mrs. Gladstone, &c. 3rd, Mr. W. Boston, Bedale.

Class B. 24 show varieties (Nurserymen).—1st, Messrs. Saltmarsh, Chelmsford, who had fine blooms of James Cocker, Henry Walton, Rosy Morn, Mrs.

S. Hibberd, Mr. George Harris, Mrs. Stancombe, Burgundy, Mrs. Harris, Constance, Revival, Earl Beaconsfield, Vice-President, Shirley Hibberd, Lady Gladys Herbert, Samuel Plimsol, Mrs. Dodds, Rev. J. Goodday, Ethel Britton, Hon. Mrs. P. Wyndham, John Neville Keynes, John Wyatt, Royal Queen, Sunbeam, and Helen McGregor. 2nd, Messrs. Harkness & Son, Bedale. 3rd, Messrs. Paul & Son, Cheshunt. 4th, Messrs. Gilbert & Son, Ipswich.

Class C. 12 show varieties (Nurserymen).—1st, Mr. Walker, Thame, with Seraph, Williams Rawlings, Henry Walton, Champion Rollo, Mrs. Shirley Hibberd, Joseph Ashby, Perfection of Primroses, George Rawlings, Herbert Turner, fine blush-white; J. Cocker, John Bennet, and Prince of Denmark; blooms of good quality throughout.

Class D. 24 fancy varieties (Nurserymen).—1st, Messrs. Keynes, Williams, & Co., Salisbury, with well formed even blooms of George Barnes, James O'Brien, Maid of Athens, Rev. J. B. M. Camm, Seedling, Professor Fawcett, Monsieur Chauviere, Fanny Sturt, Miss Annie Melsome, Miss Lily Large, Duchess of Albany, John Lamont, Gaiety (sport), John Forbes, Mrs. N. Halls, Chorister, Frederick Smith, Parrot, Flora Wyatt, Lottie Eckford, Alderman, Rebecca, Gaiety, John Saunders. The seedling fancy in this stand was afterwards named General Gordon, and obtained the prize as the best fancy flower in the show; it is a perfectly formed flower, with a golden-yellow ground, thickly striped with orange-red. 2nd, Mr. Turner, Slough.

Class F. 24 show varieties (Amateurs).—1st, Mr. T. Hobbs, Lower Easton, Bristol, with a fine collection, comprising a self from the Rev. J. B. M. Camm, James Cocker, Henry Walton, Herbert Turner, Mrs. Dods, Mrs. Stancombe, Richard Edmonds, Senator, Lord Chelmsford, Mrs. Shirley Hibberd, J. B. Reid, Lady Golightly, James O'Brien, C. E. Cope, Harrison Weir, Emily Edwards, John Standish, Prince Bismarck, Miss Cannell, Ethel Britton, James Vick, Hon. Mrs. P. Wyndham. 2nd, Mr. Henry Glasscock, Bishop's Stortford.

Class G. 12 show varieties (Amateurs).—1st, Mr. J. Tranter, Upper Assenden, with Hon. Mrs. P. Wyndham, Clara, Henry Walker, James Cocker, Hope, Mrs. Gladstone, William Rawlings, H. W. Ward, Goldfiner, Julia Wyatt, Joseph Ashby, Ethel Britton. T. A. Hussey, Esq., Norton Court, Taunton, was 2nd.

Class I. 12 fancy varieties (Amateurs).—1st, Mr. Henry Glasscock with Miss L. Large, Henry Glasscock, Mrs. Saunders, Gaiety, Peacock, Miss N. Halls, John Forbes, Mandarin, Flora Wyatt, Professor Fawcett, and Egyptian Prince. 2nd, Mr. R. Petfield.

The classes of Pompons and Singles were not only remarkably well filled, but attractive, the plan adopted of making up small bunches with buds and foliage being the only way of setting them up with good effect.

Three 1st-class Certificates were awarded for novelties, all to Messrs. Keynes, Williams, & Co. They were for *General Gordon* (fancy) golden yellow thickly striped with orange red, of perfect form; *Romeo* (fancy) buff flaked with crimson, fine form; *Mrs. Langtry* (show) yellow tipped with crimson, of exquisite form. These varieties will be very decided acquisitions in their several classes.

DESCRIPTIONS OF THE BEST PICOTEEES, &c.—VIII.

WE come next to the elegant class—rather a mixed one it is true—comprising the rose, salmon, and scarlet-edged sorts, which together form a specially interesting and highly attractive group:—

ROSE, SALMON, OR SCARLET-EDGED PICOTEEES.

ADA HANNAH (*Dodwell*).—Heavy scarlet edged; a highly refined flower of good substance; petal broad and smooth, and colour evenly laid upon the margin. A seedling from Morna (Fellowes), heavy red edge. First bloomed in 1881; sent out last autumn. Not a good doer.

CONSTANCE HERON (*Fellowes*).—Heavy scarlet edge; the broadest edge and brightest colour of any in this section, with a well-formed petal, good substance and good form. Has been bloomed in remarkably fine style this season. Raised from an unnamed seedling. First bloomed in 1879; sent out in 1882.

DAISY (*Dodwell*).—Medium rose-edged; a seedling from Fanny Helen with the beautiful tint of that fine variety, but much fuller and therefore finer in form. Smooth and of fine substance. One of the best of the class; a good grower. First bloomed in 1879; sent out in 1880.

EDITH D'OMBRAIN (*Turner*).—Heavy rose edged; a grand flower. Has the broadest marginal colour—a bright, attractive rose—of any in the class, save only Royal Visit, which is not quite so bright in tint, though very lovely; and had it only another tier of petals in the crown it would unquestionably be the finest broad heavy of the class. Viewed microscopically, as the florist will persist, despite his revilers, in viewing the objects of his devotion, and also of his exceeding delight, Edith D'Ombrain suffers, as compared with some other picotees, in a minute serrature on the edge of the petal. Nevertheless and notwithstanding this drawback, the colour is so glorious, the white ground texture and quality so good, that I feel perfectly warranted in describing it as a grand flower—indispensable indeed to the exhibitor. First bloomed in 1870; sent out in 1873. Mr. Turner does not know its origin, but I have little doubt, from its habit and grass, it springs from Kirtland's Elise.

ELISE (*Kirtland*).—Like the preceding, a heavy rose edge, but scarcely so broad in the band of colour, or bright in tint. Yet it is a beautiful flower, and frequently runs the variety just described a very close race. Raised in the neighbourhood of Oxford, but I have been unable to get accurate particulars of the date or parentage.

EMPERRESS EUGENIE (*Kirtland*).—Light edge rose. Another variety by the same raiser, and I assume from the same parentage; very pleasing in its colour, and with a good series of guard petals, but the centres are too narrow to qualify the flower for a high place in its class, though I am glad to say this fault, so marked during my cultivation of it at Clapham, has been greatly modified since I came to Oxford. Thus we have illustrated, what a learned brother very properly describes as the “idiosyncrasies” of the tribe.

ESTHER MINNIE (*Dodwell*).—Heavy rose edge; a seedling from Fanny Helen, this variety has the fine qualities of the parent, with nearly double its fullness, and an increased size. Colour, bright rose pink, on a ground of perfect purity. Will I think be a great favourite when well grown. First bloomed in the wet, ungenial year of 1879, when we saved one piping only of the stock; sent out last autumn.

ETHEL (*Fellowes*).—A light or medium-feathered edge rose; raised at Shotesham Rectory. A most lovely variety, having a finely formed petal well continued to the crown, with a rich lustrous white, fine texture, and a bright marginal colour of a most winsome rose. A good grower; altogether one of the best of the Shotesham seedlings, fine as many are. First bloomed in 1870; sent out in 1874.

EVELYN (*Fellowes*).—Light-edged rose; another of the Shotesham seedlings; a light wire edge, with a good broad petal well continued to the crown; pure white, good substance, and smooth. Sent out in 1882.

FANNY HELEN (*Niven*).—Heavy rose edge; a fine variety. By the same raiser as Mrs. Niven, purple edge, from seed harvested by Mr. Robert Marris, who believes Fanny Helen sprang from Elise. Well done, and at her best, Fanny is most beautiful, having a grandly formed petal, an exquisite marginal colour, fine texture, an irreproachable white ground, and smoothness both of surface and edge. It has too few petals to realise perfect form, nevertheless, and for some time to come, the variety will be indispensable in a well assorted collection. Sent out in 1874.

FAVOURITE (*Liddington*).—Light salmon edge; raised at Thame some few years since, but unknown to the general cultivator until brought by Mr. Anstiss, of Brill, to the exhibition of the National Carnation and Picotee Society in grand form on July 22, where it obtained first prize in its class and approved itself a first-class variety. It was shown also in Mr. Anstiss' stand of six picotees to which was awarded the first prize.

LADY HOLMESDALE (*Schofield*).—Heavy-edged rose; by the raiser of Master Nichol; light purple edge. Sent to me in the autumn of 1882 by Mr. George Rudd, as one of the

best of the class, a character, I think, when well done it will fairly sustain. Full sized, good white, smooth, with a broad well-formed petal throughout, and a solid margin of pale rose, it makes a capital back row flower. A good grower. Sent out I believe in 1881.

LADY LOUISA (*Abercrombie*).—Narrow-edged heavy rose; a very distinct and desirable sort, wanting only size to give it a very high place in the class. At Clapham I had much difficulty in keeping this variety, and as I note it is dropped from Mr. Turner's list, I suppose it must be considered delicate, but it appears by comparison to enjoy the Oxford air. Sent out in 1878.

LOUISA (*Addis*).—Heavy-edged rose. A strong growing, and probably very useful sort to the general cultivator, but far below the refinement possessed by the majority in its class, as developed that is by me, but Mr. John Ball expressed a very high opinion of it prior to sending it to me, and I note it is recorded in Mr. Turner's list as “fine.”

L'ELEGANT (*Dodwell*).—Light wire-edged salmon scarlet. A seedling from Ann Lord, light purple edge; it repeats its parent in all save colour, and were that colour a bright rose instead of the tint which always diminishes instead of adding brilliancy to the white ground, it would be one of the finest varieties of its class. As it is, it is the best light-edged salmon-scarlet.

MISS FLOWDY (*Flowdy*).—Light salmon edge. A variety sent to me by Mr. Flowdy, of Gateshead-on-Tyne, in the autumn of 1882. A break, as I am informed, from Miss Wood, which it follows in all points, save that the colour is a narrow wire instead of the slight feathering developed in Miss Wood.

MISS GORTON (*Dodwell*).—Light-edged rose. A seedling from Ethel, but with a wire-edge band of bright rose; sent out in 1881 as the best light-edged rose I had then bloomed, a description I see no reason to recall at this time. It has the finely shaped petal and form of Ethel, with its beautiful white ground, and a solid band of colour on the margin in place of the feathered edge of the parent.

MISS HORNER (*Lord*).—Heavy-edged rose. Mr. Rudd says in his latest list, “the best of its class,” and in reviewing the Picotee bloom of 1876, I remarked, “undoubtedly the belle of the class.” Well done, indeed, especially in the colour-giving atmosphere of the Yorkshire hills, Miss Horner is superb; full, fine in form, and of good size; petal broad, smooth, of rich texture, and the highest refinement; marginal colour of bright rose, evenly laid on, and the white ground without spot or bar. Raised from seed taken from Kirtland's Elise, set with pollen from Flower of the Day. First bloomed in 1873; sent out in 1877. A good grower. Early in bloom.

MISS LEE (Lord).—Another of the fine Todmorden varieties; raised from Flower of the Day, crossed with pollen from Elise. We have here a paler marginal colour, generally described as scarlet or salmon, though to my eye the colour more closely approximates to a bright rosy-buff. A lovely variety, beautiful for its symmetry of form, finely formed petal, regularity of marking, smoothness, rich texture, and good white. A good grower. First bloomed in 1871; sent out in 1873.

MISS WOOD (Wood).—Light salmon edge. A well formed, fine petalled variety, of good substance and clear white, but like L'Elegant it suffers by comparison from its tone of colour. Nevertheless it is very pleasing when young.

MRS. LORD (Lord).—Heavy-edged rose. This, a seedling from Mrs. Bayley, is in every respect—in grass, habit, and flower—an exact repeat of the parent, save only that the marginal colour is a delicate rose instead of a lilac-purple. Like its parent it possesses refinement in the highest degree; an admirably formed, stout and smooth petal, capital form, and a white ground that defies improvement. As the flower ages, the marginal colour, always delicate, slightly pales, but in every stage it is exquisite. A good grower, but being of an open and succulent habit it is much subject to the attacks of parasites. Will be found to do well from pipings put in in early summer. First bloomed in 1871; sent out in 1873.

MRS. NICHOLL (Simonite).—Light-edged rose, sometimes medium-edged. This, like all the Sheffield seedlings, has refinement in a high degree, a fine broad smooth and stout petal, and is sufficiently full to produce a good crown. Habit of grass, dwarf, bushy, and prolific. Sent out in 1874. From an unnamed seedling.

MRS. PAYNE (Fellowes).—A glorious variety indeed, unsurpassable for the beauty of its form and petal, the brilliancy of its bright rose marginal colour, and pure white ground. To my taste this flower, a seedling from Ethel, by the same veteran raiser, and a great improvement thereupon, having a brighter and broader marginal colour, and an even better form, represents perfection in a Picotee, and I can conceive nothing in its way to surpass its beauty. Nor do any of the many glorious flowers raised by Mr. Fellowes fill a larger place in my mind and heart, though I have keen remembrance of several, notably the beautiful Haidee, light purple-edge, which thirty-one years since secured the premier prize at the National Exhibition at York from a bevy of beauties. Ganymede, again, of a similar period. But the glorious rose-edge as seen in Mrs. Payne, in combination with its fine form and lustrous white ground, puts all rivalry to naught. Sent out in 1878.

MRS. RUDD (Rudd).—Heavy scarlet-edge. A seedling from Edith D'Ombrain, fertilised with pollen from Obadiah. A very distinct and beautiful variety, far the best of the heavy scarlets, having none of the rusty element so objectionable in many of this colour, but possessing a high degree of refinement in combination with a well-shaped broad petal and fine form, substance, smoothness, and white ground. Mr. Rudd, who, since this was written, has passed away, contributes in this variety a great advance upon the majority in this section, and a most decided acquisition. A good grower. Sent out in 1882.

NELLIE (Rudd).—Light-edge rose. A seedling from Mrs. Bower, light red-edge, which it follows in all respects save colour. Sent out in 1882.

PURITY (Payne).—Raised at Oxford from Eliza, light purple edge, supposed to have been fertilised with pollen from the Rev. H. Matthews, heavy rose-edged. A heavy-edged rose of good form, substance, and white ground; the marginal colour a clear pale rose. A good grower. First bloomed in 1868.

ROYAL VISIT (Abercrombie).—Offered in 1880, when sent out by Mr. Turner, as "a charming heavy-edged rose, in the way of Edith D'Ombrain, but with a more vigorous habit," a description which certainly did not exaggerate its merits. A grand variety, whether for the home stage or the exhibition table. First seen in 1877. Certified as first-class at the Exhibition of the National Carnation and Picotee Society in 1878.—E. S. DODWELL, *Oxford*.

ASPARAGUS FORCING.

HERE are two modes of forcing asparagus, the one by bringing the asparagus to the heat, and the other by bringing the heat to the asparagus.

The best quality of forced asparagus is obtained by lifting the plants and forcing them in frames. The stools ought to be taken from beds from three to five years old, and planted in light soil on a hot bed. They do not require a great heat, in fact the slower they are grown, the better will be the produce. Except in very severe weather the glass will be quite sufficient protection, so that the plants may enjoy plenty of light and air, under which conditions they will be much better than if they were continually covered up.

The easiest way to force asparagus is in beds specially prepared for forcing purposes. The beds ought to be built of bricks about three

feet wide, and the same in depth, and at least two feet between each bed. Put plenty of stones or rubble in the bottom to ensure a good drainage ; then fill up with a light sandy soil, adding a liberal quantity of manure. After they are planted it would not be wise to force them the first season, but after that they may be forced for a great number of years ; care being taken not to cut them too closely.

All that is required after the pits are built, are portable wooden covers made in a span shape, with one side at least capable of opening for airing purposes.

The first thing to determine is when the first cutting is required. If it is required to cut in January forcing must commence six weeks in advance, if in February five weeks, and if in March four weeks. The forcing consists in filling up the two feet cavities between the beds with hot dung ; placing the wooden covers on the beds, and covering all over with a good thick covering of straw to keep in the heat. As soon as the shoots begin to appear, no opportunity should be neglected of admitting as much air and light as the weather will permit, as, of course, the more air and light which are given, the plumper and shorter as well as greener will be the shoots. It is needless to add that where a succession is wanted, measures must be taken accordingly.

—T. SMITH, *Thoresby Gardens.*

WARD'S GRAPE TROUGH.

WE learn that Mr. George Ward, of Bishop's Stortford, who is well known in gardening circles as a large and successful grower of Vines and Pines, has invented a new trough for keeping Grapes after they are cut from the Vine. The trough is oblong in shape, about 17 inches long, and being composed of glazed earthenware, is clean, durable, and cheap. The troughs are single or double, the former being intended for fixing with L-shaped hold-fast against walls, and the latter for standing on wooden frames with shelves specially constructed for the purpose. The method of fixing and using them is thus extremely simple. The troughs are not placed close up end to end, but kept about 7 inches apart. Both the single and the double troughs have a flange or ledge inside. The shoot bearing the bunch of Grapes should be cut sufficiently long to

admit of the bunch hanging free of the trough, while the end of the shoot is lodged under this flange. No tying or fastening of any kind is required, the weight of the Grapes being sufficient to hold the bunch in position. By this simple contrivance much labour and trouble is avoided. The Grapes hang in their natural position, without the trough being tilted, and consequently there is no danger of any drip. There is no danger of the end of the shoot being out of the water, and yet the trough need not be filled brimfull. Water can be put into the troughs without disturbing the Grapes, and each bunch can be lifted out for examination, and replaced with the greatest ease. Mr. Ward used these troughs for keeping 800 lbs. of Grapes from January till the first week in April of the present year, during which time they were seen by many large Grape growers, who expressed their unqualified approval of the invention. M.

A TEA-ROSE SEASON.

PERHAPS that is the most fitting title for the Rose year now drawing to a close. Hardly hit, and not a few of those in the open beds and borders almost cut to the ground by the autumn frosts, the Teas sprang up with abnormal vigour, and bloomed with a profusion of flowers and a perfection of individual blossom rare among this fine class of Roses. Not a few of them also seemed quite at home through the long season of semitropical heat and arid desert-like dearth through which they were called to pass. That they were less injured by these tropical conditions than hardier families of Roses goes without saying. But more than that, not a few of the finer Teas seemed improved by the heat and the drought. They grew into larger sizes, and developed into finer form apparently through the extra warmth. Those on walls and in sheltered nooks and corners that escaped severe injury or destruction through the spring frosts also bloomed abnormally early. Not a few Marechal Niel's were out early in May, and these were closely followed by Gloire de Dijon, Safrano, Madame Sprunt, Devonensis, Homer, and others.

The Teas on walls and in sheltered places were in full bloom in the first week of June, and had it not been for the cutting frosts in

the last week of April, they would have been in flower a full month earlier. And from that early period till September, most of them have gone on blooming. The general Rose season has hardly lasted more than a month this year, and but for its being preceded and succeeded by a rich harvest of Teas, the Rose season of 1884 would have been poor indeed ; and now when the autumnal harvest of perpetual and other Roses is more scanty than it has been for years, we are chiefly dependent on Teas to lighten up the garden with beauty and fill it with fragrance, as well as to furnish the best material for decorative purposes.

So useful, and in fact so indispensable, have Teas proved themselves this season, that doubtless more will be grown in the future than have been in the past. Teas on their own roots are virtually indestructible by frost, provided ordinary care is taken to protect their root-stocks. One of the simplest and most effective ways of doing this is by earthing up the base of the stems to a height of eight, ten, or more inches—this will make the most valuable part of the Rose weather-proof. The top beyond this artificial ground line is of little value or consequence. Should it survive the winter well and good. It may be pruned back in the spring so far as suits the purpose of the cultivator. The longer the tops are left the earlier and more numerous the first crop of blooms ; but should the tops be cut down to the surface of the artificial mounds the Rose itself will suffer no harm, but will break into fresh growth with extraordinary vigour so soon as the earth is levelled down from the stems in the spring. This new and simple practice of earthing up Teas also enables them to be planted at almost any season throughout the year. Until it was discovered and practised, Tea Roses were mostly planted in the late spring or early summer months, but now they may be planted with equal success in the early autumn, and the sooner the better.

Of course, too, the root-stocks of Roses may be made safe with other substances and materials as well as earth. Spent tan, cocoa fibre refuse, coal ashes, litter or dung of any kind, tree leaves—retained in position with boughs, answer admirably. Anything, in fact, that will moderate the killing severity of the frost, such as tree boughs alone where nothing

else can be had, the tying up the tops in bundles and surrounding them with a little litter or straw, answer very well. In all cases, too, the tops of the Roses should be left intact till the cold weather is over and gone. These alone exert a powerful protective influence over the root-stock, and render other means of protection more potent, stable, and effective.—D. T. FISH, *Hardwick*.

THE USE OF LOAM IN THE CULTURE OF PLANTS.

LHE value of Loam for agricultural purposes is beyond doubt ; and it is quite as valuable in the pot-culture of garden plants. Loam which has been stacked up is to be preferred ; this freely mixed with rotten horse-dung and often turned over, yields a very superior kind of mould, which may advantageously be applied to soil-mixtures for *Laurus nobilis*, *Viburnum Tinus*, *Pomegranates*, *Oleanders*, *Oranges*, *Palms*, *Conifers*, *Myrtles*, *Pelargoniums*, and many other plants. An admixture of loam gives to the plant-mould a certain strength, a marrow, which remains a long while nutritious. The loam also has the quality of not allowing the organic matters to decay too quickly. Moreover, when loam is used in composts smaller pots suffice for the plants.

In the Van Houtte establishment, they had, at least in my time, two kinds of mould chiefly in use : the one the noted Belgian leaf-mould from the beech-groves ; the other the so-called strong earth, which was equivalent to the loam here referred to. With these two ingredients the various earth-mixtures for the various plants were produced ; decayed dung, and well dried pulverised cow-dung being added when necessary.

In former times loam found manifold applications in plant-culture, especially in propagation. It is known that loam tends to foulness or putrefaction much less quickly than other soils, even including sand. Thus, to prevent decay, many gardeners formerly adopted the plan of surrounding the base or the incised part of a cutting or layer with a little pat of loam before planting it in sand. In my apprentice days I have experimented in this way in the case of a still rare plant, *Pelargonium tricolor*, which, from shoots treated in this

way readily strike root and become strong plants, while most of the cuttings inserted in the usual way perish. The aged father of my master advised me to give this plant a trial once more according to his method, namely, to surround each shoot at the point of incision with a small loam ball, and not till then to set it. So said, so done. Ten shoots prepared in this manner were set and closed up in fives close to the rim of $2\frac{1}{2}$ —3 in. pots, but were not kept very warm. After the lapse of some weeks all the shoots were found to have rooted. In the same way roots were more speedily produced with the English and Odier Pelargoniums.

In order to increase Carnations by slips, the plan is to cut off young side shoots under a joint; these must be split through crosswise, and the cut shoots with the split ends put for twelve hours in fresh water, by which means the four parts produced by the cross incision become separated; the end of the slip is then to be supplied with the pat of loam so that the opening between the cross slits may be filled up with it, the shoots being then either planted out in a close frame or separately in small pots. The shoots of Roses in the open air in summer, planted as cuttings, were also supplied with the pat of loam in a similar manner.

Such experiments are now thrown aside as frivolous, and perhaps not without some reason. Nevertheless, it has been clearly ascertained that the loamy soil prevents rotting, and therefore it would seem that it might be employed with advantage in the multiplication of difficult rooting plants. Naturally, it has to be applied in particular ways for particular objects. Thus it ought to consist of the loam pap (pulp) mixed with pulverised charcoal when used for covering the cut ends of the shoots.—R. MÜLLER, *Praust, Danzig (Garten-Zeitung)*.

THE POMEGRANATE.

AT Mr. B. S. Williams's Victoria and Paradise Nurseries, Upper Holloway, a beautiful collection of Pomegranates (*Punica Granatum*), consisting of many varieties, is now to be seen, many of the kinds being in full bloom, and presenting a display of some novelty in London. The plants are mostly standards with heads varying from eight inches to two feet across, neat,

bushy, and compact. Beside the old double red in different shades, and the old double Carnation-striped kind, several new ones are in flower, the most noticeable being the new double white, and the fine double scarlet variety called *Ludovica Taverna*. The single varieties are also very attractive, the beauty of their flowers being further assisted by a plentiful display of fruits which make the little trees look very quaint.—J. O'BRIEN.

JUDGING MELONS.

IT is by no means a new idea to judge Melons by sight only. If fine appearance, smell, and weight, were the only merits desired there need be no difficulty whatever in the way; but depth of flesh, texture of the same, thinness of skin, and above all, flavour, are items to be considered, and carefully too, as they are of far greater importance than the three first properties. I never have, when judging or testing flavour privately, been able to form my judgment by my nasal organ. Often the best scented melons are in a state of semi-decay and worthless; and without cutting how is one to know scarlet from green-fleshed kinds. Over and over again we have seen the one colour exhibited for the other. Last season we cut a large number of Melons during November, and kept many till February in fair condition as to flavour, and some without scent, till cut, were the best.—M. TEMPLE.

DESIRABLE HARDY FRUITS.

AS the planting season is now at hand I venture to name a few sorts of hardy fruits that have done well with us on our somewhat stiff soil resting on magnesian limestone. I am particular to mention this, as I feel sure that soil is a very important factor in the success or otherwise of many varieties of fruits. I do not advance this as new, knowing that scores of gardeners and others are fully alive to it, but there may be others amongst your readers who may not be.

To begin with Peaches. We find *Red Nectarine Peach* to be one of the best and surest croppers and healthiest trees we have for outdoor purposes; it is also a capital one for a midseason peach-house; it is very closely related to Bellegarde, but in my opinion distinct, the colour of the flowers being of a



W. H. Fitch, del.

Apple Bramley's Seedling.

deeper rose colour. I have seen it growing in three different gardens and always successfully. The only catalogue in which I have seen it quoted is the Fruit Catalogue of the Messrs. Veitch & Sons, of Chelsea, and it is there described as a new Syrian variety of great excellence.

The next on my list is *St. Ambrose Apricot*. We find this variety to suffer less from the sudden loss of its branches than any other apricot we grow, and we have five different varieties; it requires to be partially lifted occasionally in the autumn so as to ensure the wood not being too strong, and consequently more certain to ripen, otherwise it is not quite such a sure cropper as Moor Park.

Lastly, as now is a good time to plant Strawberries, allow me to mention *The Countess* and *Unser Fritz* as two excellent Strawberries. The former has with us a distinct Hautbois flavour; and the latter is a useful late variety with some Frogmore Pine blood in it; both are excellent croppers and produce fine fruits.

—H. J. CLAYTON, *Grimston*, Sept. 8, 1884.

APPLE BRAMLEY'S SEEDLING.

[PLATE 620.]

IT augurs well for the merit of this fruit, that at the Apple Congress held last year at Chiswick, when amongst the host of varieties exhibited there were but two selected for certificates, this was one of them.

The variety was raised from seed some years since by Mr. Bramley, of Southwell, and was obtained from him by Messrs. Merryweather & Son, by whom it has been distributed, and by whom it was exhibited at the Congress. It is a large, handsome, and really meritorious Apple, so that as it has become better known it has won increased favour from those who have cultivated it, and its first-class quality has now been attested by the highest authorities.

A woodcut figure transferred from the *Journal of Horticulture* has been published in Hegg's *Gardeners' Year-Book* for 1884, where also we find a description embodied in the following notes:—*Fruit oblate, even in its outline, and with five rather distinct knobs at the crown. Skin covered with a tinge of pale red, which is much striped with darker*

red; when shaded the ground colour is yellow. *Eye* rather open with erect segments, which are reflexed at the tips and set in a wide round saucer-like basin. *Stamens* medium. *Tube* funnel-shaped. *Stalk* very short, sometimes a mere knob. *Flesh* yellowish white, tender, juicy, with a fine brisk acidity. *Cells* round, open. The tree is of vigorous habit, and free from canker, bearing freely even in bad seasons. According to Mr. Merryweather the fruits are ready for use when gathered, but can be kept until the following June. He adds, that for culinary purposes it cannot be surpassed. Altogether, it may be regarded as a kitchen Apple of very high excellence.—M.

HYACINTHUS CANDICANS.

HIS is a bulbous plant of recent introduction into British gardens, and one highly deserving of being prominently brought into notice for more general cultivation, either under glass or amongst hardy herbaceous plants, where it succeeds admirably.

We have it flowering here at present in both positions with stems like walking canes three to four feet in height, and carrying up a succession of graceful pure white pendent bell-shaped flowers about one and a half inch long, which continue blooming on for several weeks.

The time of flowering here is August and September, but like Gladioli they may be had either earlier or later in the season, if desired, by advancing or retarding the bulbs in spring. They may also be left out on the ground all winter, being perfectly hardy.

The price of the bulbs being so low, and the plant so desirable to have in possession, it cannot be long ere it is seen in all the principal gardens throughout the kingdom. [It is now called *Galtonia candida*].—J. WEBSTER, *Gordon Castle Gardens*, Sept. 6, 1884.

GAILLARDIA LORENZIANA.

ITHINK every one who has grown this new form is delighted with it, but one cannot always depend upon its being uniformly true from seed. Probably in the estimation of some this is not a matter of great moment, as all the variations are certain to be attractive. A bed of seedlings at Chiswick shows much diversity of character: some are

in the true form, some deep yellow, some pale yellow or straw-coloured, some quite dark. A few single ones are certain to put in an appearance, but all are so useful for cutting from, besides producing so many flowers, that there is really little room for finding fault. Those who have not hitherto included *Gaillardia Lorenziana* in their flower seed orders, should do so without delay. They will not regret giving it a place in their gardens.—R. D.

TREE MIGNONETTE FOR WINTER.

NE of the most useful things for cutting from in the winter is the Mignonette ; and for this purpose, we generally grow about a dozen plants on wire trellises. We sow the seed about the first week in April, in three-inch pots, filled with sifted loam and leaf mould, with a little sand to make it free, sprinkling a few seeds in the centre of the pot, covering with some fine soil, and placing them in a cold frame till large enough to handle. We then thin them out, leaving only the strongest plant. As soon as the plants are about three inches high, a thin stake, about two feet long, is placed to each, and pushed down to the bottom of the pot, the plant being tied loosely to the stake. By the time it reaches the top of the stake it will be ready for a shift into a six-inch pot. The side shoots have to be carefully pinched off, and when the principal stems have reached the proper height for the trellises we pinch out the top a few days before putting them into their flowering pots, ten-inch pots being the size used. We then stand them out of doors, at the back of one of the ranges of houses facing north. We syringe them twice a day, and keep them carefully pinched and tied in. We leave them out till the appearance of frost, and then we place them in a cool greenhouse, and let them flower. In this way we get plenty to supply our wants—which are great, as cut flowers are very freely used here for table decoration. The soil used is good rough loam, and rotten manure, with a free sprinkling of lime rubbish or broken crocks, to keep the soil porous. The sort grown is Miles' New Spiral, and a very good variety it is for this purpose.—T. COPPER, *Thoresby Gardens.*

COOL ORCHIDS.

T would no doubt interest a large class of the readers of the FLORIST AND POMOLOGIST to know how many kinds of Orchids may be successfully grown in a greenhouse where heat would only be applied during frosty weather.

I have a very healthy plant of *Cypripedium insigne*, which has stood two winters under greenhouse treatment, and is now making three healthy growths. It made one growth the first year and produced one flower, two growths the second year and produced two flowers, and I quite expect three flowers next year from this plant. I remember many years ago Mr. Dodds, then living at Stockwell, trying several kinds under greenhouse treatment, but I never heard with what result. Messrs. Backhouse & Son, of York, also tried many kinds out of doors during summer, and when I saw them they appeared quite healthy, and seemed to enjoy their position ; no doubt they have also tried them under greenhouse treatment, and if so it would be very interesting to know with what results.

The late Mr. Green, when gardener to Sir Edward Antrobus, Bart., Lower Cheam, astonished the Orchid world by producing a fine specimen of *Dendrobium nobile* at the May show of the Horticultural Society at Chiswick, and this was accomplished by keeping the plant in a cool greenhouse all the winter, and so preventing its flowering at the usual time. The beautiful *Lycaste Skinneri* was never properly grown until subjected to cool treatment, and the *Pleione Wallichiana* may be mentioned as another example of an Orchid which was never seen in perfection until removed from the stove to the cool-house. I have no doubt many other examples of a similar character are known to cultivators.

These beautiful plants could only be obtained some few years back by the wealthy ; now we see them advertised at prices within reach of most people who can afford to indulge in the luxury of a small greenhouse, and hence it becomes an interesting question as to how many of them may be grown successfully under the circumstances named.

I do not suppose for one moment that all the varieties set down for cool treatment in our trade catalogues would be suitable, but

some of the hardiest of them might be grown in such a manner as to give a large amount of real pleasure to the cultivator.

I have little doubt but such kinds as *Odontoglossum grande*, *Lycaste Skinneri*, *Dendrobium nobile*, and perhaps others of the *Odontoglossums*, might be named as suitable for this mode of culture, and most probably other kinds of *Cypripedium*. The late Mr. Leech, of Clapham, used to grow *Disa grandiflora* to perfection in a cold frame, merely keeping away frost; and I never saw finer specimens than he produced. I trust some of the readers of the FLORIST will give the results of their experience, so that we may learn how many of these beautiful plants may be treated with success in the way I have indicated.—

G. EYLES.

CRINUM POWELLI.

THIS is a hybrid raised by Mr. Powell, when at Bury St. Edmunds, between *C. Mooreanum* and *C. longifolium*.

Having stood the test of years as a hardy bulb, it may safely be stated to be one of the finest and showiest hardy flowers of recent introduction. It varies in tint from white to pink, and it partakes much of the habit of *C. Mooreanum*, with its fine foliage and large open heads of bloom. Its flowers are about three inches across, and the flower spikes two feet to three feet in height. Like most Cape bulbs it requires deep planting; and that is the only secret of its success as a hardy plant. It has bloomed well with Sir Trevor Lawrence at Burford Lodge, near Dorking, this year.—J. O'BRIEN.

GOOSEBERRY PRUNING.

IT is the opinion of some that the pruning of Gooseberries is an evil attended by non-fruitfulness, but the answer to this is that the evil is long in coming. We know where Gooseberries are to be seen in districts hundreds of miles apart, both in Scotland and England, on which pruning has been practised, and every season too, beyond the recollection of most of the oldest of the present generation of gardeners, and before the writer was in existence. They are still fruitful, and though not large, are of excellent quality. The wretched examples too often

seen in market gardens are the patterns of success which we are directed to follow; but I think men who have for many years prided themselves in cultivating the justly popular Gooseberry will be tardy in adopting a system which may give plenty of fruit, comparatively small and tasteless when ripe, difficult to gather from bushes crowded and unsightly, which in the majority of cases are what we see in market establishments. I was employed when a youth in one of these gardens near London. The bulk of the crop was gathered and sold when in a green and unripe state, and those which were left never attained their true character either as to appearance or flavour, simply because light and air reached the fruit very imperfectly.

In some of the great fruit-growing districts it would be next to impossible to prune the forests of bushes, but where first-rate fruit is in request cut out a portion of old wood and allow young upright growths to take the place of old branches, leaving the shoots full length, or as nearly so as strength may dictate. If they are inclined to be "woody," the bushes may be lifted, replanted on a firm bottom and well mulched. The shape of bush may be like an inverted umbrella. The more upright and equidistant the shoots, the easier, proportionately, will the crop be to gather. Such bushes should bear every year without fail, and in such quantity that one might gather half a bushel without advancing a pace. There are strange and varied methods however of pruning, but with none of the old-fashioned growers' the report of failure is to be heard; and we certainly (the present generation of cultivators), with all our advantages and so-called improved systems, are at best slovenly and unsuccessful as regards hardy fruit cultivation, compared with what we are taught to learn of the men of the past.—M. TEMPLE.

REGISTER OF NOVELTIES.

NEW PLANTS.

AMASONIA PUNICEA, Vahl (*Gard. Chron.*, N. S., xxi., 342).—A handsome stove plant belonging to the Verbenaceous order, of shrubby habit, with opposite, oblong or elliptic-lanceolate, coarsely serrated leaves, having a smooth surface and a deep green colour. The flowers grow in long erect panicles, and have ovate-lanceolate persistent red bracts, five-parted red calyces, and tubular creamy-yellow corollas with projecting curved stamens like those of a Clerodendron. The coloured bracts are very enduring, and remain for several months on the plant. The



CRINUM SANDERIANUM. (See p. 157.)

genus is nearly related to Clerodendron; it was introduced originally in 1825, but probably had been lost in the interim. Awarded a 1st-class Certificate at South Kensington on September 9; Brazil; Veitch & Sons.

APHELANDRA MARGARITÆ, E. Morren (*La Belg. Hort.*, 1883, 315 t. 19).—A beautiful dwarf stove plant, with cylindrical hairy stems, and decussate short-stalked elliptic leaves, of a clear rose beneath, and marked on the upper surface with about half a dozen oblique bars of white on each side the midrib. The flowers grow in short terminal spikes from between pectinate bracts, and are pubescent, and

wholly of a bright orange or apricot colour. Like the rest of the species it probably is a native of Central America.

BERBERIS CONGESTIFLORA HAKEOIDES, Hook. fil. (*Bot. Mag.*, t. 6770, as *congestifolia*).—A rather attractive species of Berberry, presumably evergreen though not so stated, very distinct from any other cultivated species. It is a stout bush, 6—7 feet high, the terminal branches elongate and decurved and crowded with leaves and flowers. The leaves are orbicular or broadly-oblong, short-stalked, leathery with the margin strongly spinulose-dentate. The flowers grow in dense sessile or shortly-stalked

heads in the axils of the leaves, or along the leafless ends of the shoots forming long interrupted spikes ; they are small and of an orange-yellow colour ; Chili, whence it was introduced in 1861 by the late Mr. R. Pearce, and has flowered annually at Coombe Wood in early spring ; Veitch & Sons.

CRINUM SANDERIANUM, Baker (*Gard. Chron.*, N. S., xxi., 102 ; *Bull. Bulb Cat.*, 1884, 1 fig.).—A beautiful hothouse bulb of very distinct character. It has globose bulbs two inches in diameter, ensiform leaves a foot to a foot and a half long, and its sessile flowers are borne in umbels of three or four together, and each consist of six lanceolate perianth segments, which are white with a broad and conspicuous band of reddish-crimson down the centre ; Sierra Leone ; F. Sander & Co. ; W. Bull.

LONICERA MAACKI, Maximowicz (*Gartenflora*, t. 1162).—A rather pretty species of Fly Honeysuckle forming a much branched hardy shrub growing 10—15 feet high and having ovate-elliptic acuminate leaves rounded at the base, and in their axils numerous flowers, which are white with a narrow funnel-shaped tube, and a two-lipped limb of five segments, of which four are united into one piece and spread in one direction, the single lobe taking the opposite one. The abundant flowers must give it an ornamental character ; Southern Mandchuria, and in the island of Nippon, Japan ; St. Petersburgh Botanic Garden.

PENTAPTERYGIUM SERPENS, Klotzsch (*Bot. Mag.*, t. 6777).—A very handsome Indian epiphytical plant, belonging to the Vacciniaceæ, remarkable for its large tuberous oblong or deformed rootstock, from which spring pendulous branches 2—4 feet long, clothed with sub-bifarious ovate-lanceolate or oblong ovate coriaceous evergreen leaves serrated towards the tip and of a deep green ; and bearing axillary flowers which are tubular, more than an inch long, inflated, five-angled, bright red obscurely cross-barred with darker red. Introduced from Darjeeling, and at Kew “cultivated in a basket from which the branches hang and flower in the month of May.” In the humid forests of Sikkim and Bhotan it inhabits both the tropical and the temperate regions, descending to 3,000 feet and ascending to 8,000 feet.

NEW FLOWERS.

AMARYLLIS.—*Mrs. W. Lee*, a lovely hybrid resulting from a cross between *A. reticulata* and one of the hybrid race ; the flowers are of medium size, and of a delicate rose colour pencilled with deeper lines ; 1st-class Certificate R.H.S., September 9 ; B. S. Williams.

BEGONIAS (TUBEROUS).—*Oclavia*, a remarkably fine double white variety ; the flowers are large, fully double, symmetrical, and of a pure ivory whiteness ; the habit dwarf, yet bold and vigorous. *Madame Crousse*, also a very fine double variety, with very large and finely shaped flowers, very full and of fine shape ; colour soft salmony buff ; 1st-class Certificate to each R.H.S., September 9 ; Cannell & Sons, and for the latter also to W. Bealby. *Queen of Bedders*, a single-flowered variety of dwarf and bushy habit, bearing a profusion of delicate rose-pink flowers ; it promises to make a very useful bedding variety ; 1st-class Certificate R.H.S., August 26 ; Cannell & Sons. *Souvenir de W. Saunders*, a double-flowered variety remarkable for its dwarf sturdy growth, and short erect flower stems ; the flowers are large, fully double, and of a deep rich crimson-red colour ; 1st-class Certificate R.H.S., August 26 ; J. Laing & Co.

DAHLIAS.—*Mrs. Douglas* (show), a fine and distinct self flower ; fine outline and substance, and with exquisitely formed florets ; colour lively red shaded with crimson ; 1st-class Certificate R.H.S., August 26 ; Rawlings Bros. *Mrs. Langtry* (show),

buff ground, the centre pale yellow, the florets edged with bright red and maroon ; high centre, fine pip and outline. *Romeo* (fancy), buff yellow ground, the colour suffused with dark cinnamon, and striped with crimson, good florets, centre, and outline. *General Gordon* (fancy), deep yellow ground, heavily flaked with orange-red, fine form, good florets and outline ; 1st-class Certificates to each of the three foregoing varieties at the Crystal Palace, September 6 ; Keynes & Co. *Faiston* (bouquet), a very pretty variety of a bronzy buff colour, sometimes tipped white and pink on certain parts, very distinct and pleasing ; also *Mrs. Langtry* (show) and *General Gordon* (fancy), 1st-class Certificates to each of the foregoing R.H.S., September 19 ; Keynes & Co. *Formosa* (single), a charming rich deep scarlet crimson variety, with a large golden centre ; medium size, and excellent shape ; 1st-class Certificate R.H.S., September 9 ; Cheal & Sons.

DIPLODENIA Elliottii.—An extremely beautiful variety, remarkable for its vigorous growth and large highly coloured blossoms ; they are about the size of those of *D. Brearleyana* and similar in shape, and of a pleasing deep rose pink colour ; 1st-class Certificate R.H.S., August 26 ; Lucombe, Pince & Co.

BESSERA elegans.—A charming little Mexican bulbous plant, with slender graceful flower stems about a foot in height, and carrying umbels of small star-shaped flowers of a bright red colour striped with white. It is almost hardy, but cultivated in pots in a greenhouse ; 1st-class Certificate R.H.S., August 26 ; T. S. Ware.

GLADIOLUS.—*St. Gatien*, a very fine variety with a long and massive spike of flowers of perfect shape, colour glowing vermillion scarlet flaked with lighter and darker hues ; 1st-class Certificate R.H.S., August 26. *W. Kelway*, a splendid variety, bearing a massive spike of bright scarlet flowers flaked with crimson and blotched with maroon ; a noble exhibition variety. *Sir Francis Bolton*, also bearing a massive spike of a vivid scarlet-carmine colour flaked with crimson ; 1st-class Certificate to each R.H.S., September 9 ; Kelway & Son.

CROTON Thynei.—A very fine, bold and robust growing variety in the way of Baroness Rothschild, the leaves larger, more distinctly coloured, having also a deeper shade of bronze, and reddish veins ; a seedling variety ; 1st-class Certificate Dundee Horticultural Society, September 11 ; J. & R. Thyne, Glasgow.

NEW VEGETABLES.

CABBAGE, *Earliest Vesuvius*.—A short-stemmed Italian variety, with flat and very firm heads, and few loose leaves, of a bluish-grey colour somewhat resembling the Brunswick in shape and colour but superior in flavour. It is said to be the earliest and most productive variety known ; Dammann & Co.—*Early Mongibello*, a short-stemmed sort, with the green leaves traversed by violet-coloured veins, and forming solid heads in three months ; a very distinct Cabbage, much appreciated in Italy and there preferred to any other, being particularly adapted for spring culture ; Dammann & Co.

LETTUCE, *Potenza Cos*.—A very distinct variety for spring sowing, and the earliest of all Cos Lettuces, of Italian origin and grown almost exclusively in some parts of Italy. It grows nearly two feet high, forming very solid self-folding heads surrounded by brownish-bronzed leaves and stands long before it runs to seed ; Dammann & Co.

NEW FRUITS.

PEAR, *Beurré Wamberghies* (*Florc des Serres*, t. 2480).—This pear was raised by a Belgian nurseryman, M. Joseph Wamberghies, of Ressaix, near Binche, and bears a high character in the country of its birth. Fruit rather large, variable, usually

obovate like a well-shaped Doyenne, but sometimes is narrowed to both ends. *Stalk* reddish set in a deep irregular basin. *Eye* large, in a deep depression. *Skin* at first deep green changing to yellow at maturity sprinkled with small grey dots. *Flesh* tender and melting, without any grittiness, the juice remarkably sugary and delicately perfumed with a flavour difficult to characterise. The fruit is exceptionally late, not ripening till May and to be had till the middle of June. It is a very early blooming hardy tree and exceptionally fertile, so much so that when grown on a wall the half of its fruits must be taken off.

NEW PUBLICATIONS.

The BOTANICAL MAGAZINE (Aug.—Sept.) contains figures of *Beschorneria Decosteriana*, Hort. Leicht. [t. 6768], a fine Amaryllidaceous plant of the Agave group having a rosette of twenty or more oblanceolate leaves 2—2½ ft. long, thickened and dilated at the base, dull green above, glaucous and obscurely keeled beneath; the flowering stem is twice as long as the leaves, erect, and terminating in a deltoid panicle of drooping tubulose flowers which are green, 1½ inch long, and cut nearly to the base into six closely imbricated oblanceolate segments; Mexico; Kew.—*Rhododendron multicolor*, Miquel [t. 6769], the pretty little Sumatran shrub, introduced as *R. Curtissii*, and figured by us at p. 613; here a pale yellow and a dull red form are represented; Veitch & Sons.—*Berberis congestiflora hakeoides*, Hook. f. [t. 6770, as *congestifolia*], a large bushy hardy or nearly hardy shrub, with decurved branches, roundish or broadly-oblong shortly-stalked spinuloso-dentate leaves, and bearing in their axils globose masses of deep golden yellow flowers; Chili; Veitch & Sons.—*Odontoglossum Edwardi*, Rchb. f. [t. 6771], a very distinct species remarkable for its purple flowers; the pseudobulbs are ellipsoid, and produce strap-shaped leaves in pairs from their apex, and suberect panicles 2 ft. long bearing several alternate branches furnished with flowers the dark purple colour of which is relieved by the bright yellow calli of the lip; Ecuador; Kew.—*Salvia discolor*, Kunth [t. 6772], a bold habit soft-wooded Sage, 3—4 ft. high, clothed with white tomentum, the stalked leaves ovate-oblong, or oblong-lanceolate leaves very white beneath, and the branches terminating in whorled spike-like collections of dark purple bilabiate flowers of which the lower lip is bifid, the dark colour contrasting strongly with the downy white calyces; Peru; Cannell & Sons.—*Pholidodendron Selloum*, C. Koch [t. 6773], a scandent subarborescent stove Arad, with subcoriaceous ovate-sagittate deeply pinnatifid leaves, and narrow oblong spathes a foot long, very stout, dark green on the outside, pale yellow within, the spadix pale yellow as long as the spathe which has a partially expanded concave apiculate lamina; Brazil; Kew.—*Cereus paucispinus*, Engelm. [t. 6774], a succulent greenhouse plant, 5—9 inches high, the stem deformed, constricted and divided in 5—7 deep grooves; the mamillæ are hemispherical or elongate with a small areola from which spring 3—7 stout radiating spines tumid at the base; the flowers are 2½ inches in diameter dark brownish red, the petals yellow towards the base; hardy in a frame in the climate of Surrey; New Mexico; E. G. Loder, Esq.—*Iris tingitana*, Boiss. [t. 6775, not t. 5981], a pretty bulbous Iris, with linear, channelled leaves, and large bright lilac flowers; Morocco; Kew.—*Ravenia Hildebrandtii* [t. 6776], an African Palm, the description of which is deferred.—*Pentapterygium serpens*, Klotzsch [t. 6777], a beautiful Vaccinaceous plant of epiphytal habit, with a large tuberculous rootstock, and long pendulous branches clothed

with ovate lanceolate leaves, and handsome tubulose five-angled, bright red flowers; India, Darjeeling; Kew.

L'ILLUSTRATION HORTICOLE (7—8 liv.) contains *Lælia elegans alba*, Lind. [t. 526], a very fine variety with sepals and petals of a pure white, while the front lobe of the lip is a carmine magenta, the incurved side lobes being white; it is a very charming variety; St. Catherine; Comp. Cont. d'Hort.—*Apheleandra atrovirens*, N. E. Brown [t. 527], a dwarf habited Acanthad, with elliptic-ovate leaves of a shining dark or blackish green above, purple beneath, and terminal spikes of small yellow flowers; Bahia; Comp. Cont. d'Hort.—*Calceolaria arachnoideo-crenatiiflora*, Rodigas [t. 528], a group of fine hybrid Calceolarias such as are common in gardens, and which M. Rodigas attributes to the cross fertilisation of *C. crenatiiflora* and *C. arachnoidea*, to which he might have added *C. corymbiflora* and *C. purpurea*, and probably some others.—*Dianthus Caryophyllus* [t. 529], a group of fancy Carnations.—*Cypripedium ciliolare*, Rchb. f. [t. 530], a fine and somewhat novel species, with handsomely mottled bright green leaves, and large flowers a good deal stained with reddish brown, the broad obtuse petals being very conspicuously fringed with black hairs; Philippine Islands; H. Low & Co.—*Gunnera manicata*, Lind. [t. 531], a figure of an entire plant before arriving at the flowering stage. It is a noble species, with a clear green foliage measuring a yard and a half in diameter, and excellent for summer bedding; Brazil; Comp. Cont. d'Hort.

LA BELGIQUE HORTICOLE (Jan.—Feb.) opens with a portrait and memoir of M. Thuret, and has the following coloured representation of plants:—*Billbergia Sanderiana*, E. Morr. [t. 1—2], a brilliant addition to the genus, having shortish mucronate strongly armed leaves (which are longer with smaller spines as grown in heat) and a nodding scape bearing a loose elongate panicle of handsome flowers, which have large rosy-pink bracts, short glaucous green sepals tipped with blue, and brighter green petals three times as long, with a spreading blue limb about equalling the yellow stamens; Brazil near Rio de Janeiro; F. Sander.—*Masdevallia bella*, Rchb. f. [t. 3], a tufted growing species of a grotesque and rather handsome appearance, with elliptic leaves attenuated into the petioles, and large flowers of a triangular form yellowish inside mottled with reddish purple, the petals small, and the lip rather large pure white; the exterior of a mottled-reddish-purple; Colombia; M. Oscar Lamarche de Rossius.

GARTENFLORA (June—Aug.) contains figures of *Sedum Sempervivum*, L. [t. 1155], a handsome half hardy succulent biennial with heads of starry scarlet flowers.—*Allium Semenovi*, Regel [t. 1156], a hardy bulb from Turkestan, with fistulose leaves and small heads of yellow flowers; St. Petersburg.—The t. 1157 is a view of the Palm House at Syon.—*Narcissus Pseudo-Narcissus* [t. 1158] represents several forms of this spring Daffodil of which two appear to be unfamiliar here, namely, *Regina Margarita* (fig. 5), with very narrow elongate recurved white sepals and a lemon yellow slightly expanded toothed cup; and *Dr. Regel* (fig. 6), a fine double yellow form referred to *L. præcox plenus*; it has the sepaline segments spreading, and the corolla compactly imbricated, full, deeper yellow, with a regular crenated border.—*Cattleya Whitei*, Rchb. f. [t. 1059], with pale rose sepals and petals, and the lip with side lobes of the same, the lip being of a much deeper rose and veiny.—T. 1160 gives a view of the interior of the fern house in the Royal Botanic Garden at St. Petersburg; and t. 1161 represents a magnificent *Todea barbara* in the same house.—*Lonicera Maacki*, Maxim. [t. 1162], a fine white-flowered Fly Honey-suckle from Mandschuria (see p. 157).—*Mutisia brevi-*

flora, Philippi [t. 1163, fig. 1], a pretty climbing Composite with albo-tomentose stems and leaves, the latter ovate-oblong retuse or emarginate with short spiny teeth, and having the middle nerve produced into a short cirrus, and terminal flower-heads with one row of blunt spreading orange-red florets; Chilian Andes.—*Mutisia versicolor*, Philippi [t. 1163, fig. 2], a very distinct climbing Composite, with terete striate wingless stems, linear subulate leaves hooked at the point, and solitary terminal flower heads in which the ligulate ray florets are linear, orange-yellow transversely banded with dark purple; near M. subulata R. & P.; Chilian Andes.—*Habranthus punctatus*, Herb. [t. 1163, fig. 3], a small half-hardy bulbous plant leafless at the time of flowering. The scape is about 3 inches high, the flower crenuous, funnel-shaped with a green tube, and the spreading segments white dotted with scarlet; Cordillera de Rengo.—T. 1164 is a view in the St. Petersburg Exhibition showing a fine specimen of *Encephalartos Altensteini*.

JOURNAL DES ROSES (Aug.—Sept.) figures the following:—*Rose Red Dragon*, a fine climbing Rose, raised by Messrs. W. Paul & Son, of Waltham Cross. The habit is vigorous, the foliage is ample and of a rich green, and the flowers are large, cupped, very double, of a brilliant carmine crimson, produced freely.—*Rosa microphylla*, a small-leaved species, of which the plate represents a variety known as the Old Purple (pourpre ancien); the flowers are of a bright cerise red paler towards the edges. Several other varieties of this interesting species are described.

REVUE DE L'HORTICULTURE BELGE (Aug.—Sept.) has figures of *Hypocyrta brevicalyx*, Hort., a curious but pretty Gesneriad with gouty heart-shaped orange-scarlet flowers; and *Dianthus lignosum President Amiral Greig*, a tree Carnation with red ground purple-flaked flowers. There is also a woodcut of *Alocasia Sanderiana*, one of the handsomest of the metallic-tinted white-ribbed arrow-shaped leaved Arads with lobate margins. There is a notice of the meeting of the *Chambre syndicale des Horticulteurs Belges*, which would be of much greater interest if the better novelties were described so as to be recognizable.

BULLETIN D'ARBORICULTURE, &c. (July—Aug.) contains illustrations of a new *Pear Grand Soleil*; and a *Group of Strawberries*, the varieties being *White Pine-apple*, *Rosa*, *Triomphe de Gand*, and *Sharpless*.

REVUE HORTICOLE (Aug. 1—Sept. 1) figures *Phyllocaulus edulis*, already noticed at p. 138.—*Kentia macrocarpa*, Brongn., a fine New Caledonian palm, with handsome somewhat erect pinnate red-stalked leaves, the young ones in process of development assuming a striking tint of brownish-orange; it is known in collections as *Kentia Lindeni*, under which name it was noticed with a woodcut at p. 71 of our present volume.—*Prunus triloba* and *P. Pissardi*, in fruit. The first is the plant formerly known in gardens as *Amygdalopsis Lindleyi*, and in the mature state has elliptic sharply-toothed leaves, and set on by short decurved pedicels small round reddish-orange cherry-like fruits about half an inch in diameter. The second has purple finely serrate leaves, and larger fruits more than an inch in diameter on slender half-inch stalks, and of an orange-red colour.

The GARDENERS' CHRONICLE (Aug. 23—Sept. 13) contains the following:—*Govenia Andrieuxii*, Rchb. f. (p. 230), a pretty terrestrial Orchid, with an erect spike of yellowish flowers white at the base, the lip with round purple spots in front, and yellow with brown bars above; Mexico; W. Bull.—*Govenia deliciosa*, Rchb. f. (p. 230), another pretty terrestrial Orchid near *G. liliacea*.

It has an erect spike of white flowers, the broad petals marked with purple bars and the elliptic apiculate lip having dark brown spots in front; Mexico; W. Bull.—*Kniphofia Leichtlinii distachya*, Baker (p. 230), in the way of *K. Leichtlinii* but more robust, the leaves broader, the peduncle longer, the perianth which varies from lemon to fulvous yellow, a little shorter, and the stamens more extended; it is suggested that it may be a hybrid between *K. comosa* and *K. Leichtlinii*, the two plants having been growing near together; Herr Leichtlin.—*Calanthe Curtisii*, Rchb. f. (p. 262), a pretty terrestrial Orchid, with long-stalked cuneate-oblong leaves, and a spike of flowers, of which the sepals and petals are white inside, rosy outside, the petals and lateral sepals with rosy borders, and the lip is yellow with a purple callus; Sondaic Isles; Veitch & Sons.—*Phalaenopsis violacea Bowringiana*, Rchb. f. (p. 262), a very fine variety with flowers of a pure light yellow having a broad dash of purple inside each lateral sepal, and some fine bands and numerous freckles of the same colour at the base of the petals and upper sepal; J. C. Bowring, Esq.—*Bravoa Bulliana*, Baker (p. 328), a remarkable S. American Amaryllid, with a tuberous rootstock, and two or three bright green lanceolate leaves contemporaneous with the blossoms, which grow on a peduncle 2—3 feet long, bearing a raceme of five or six pairs of curved infundibuliform flowers upwards of an inch long, whitish outside tinged with greenish purple, and dull yellow inside; supposed to be Mexican; W. Bull.

GARDEN GOSSIP.

THE new AMAZONIA PUNICEA, noticed at p. 155, for which a 1st-class Certificate was voted at South Kensington on September 9, is a plant for which a brilliant future may be reasonably predicted. It is not only an extremely handsome plant, but it is absolutely distinct from any other in cultivation. It belongs to the verbena family, and is a near ally to the Clerodendron. The habit is erect and shrubby, with large spreading foliage. The flowers are borne on terminal spikes about a foot in length, and very gracefully arched. The flowers are tubular and of a creamy white colour, each subtended by a brilliant floral bract, lance-shaped, and from two to four inches in length, and as brilliant in colour as those of a Poinsettia. These bracts being so numerous, render the plant extremely attractive, and as they continue in perfection for a long time, the value of the plant is increased thereby. It comes from Tropical America.

— ALL the HEPATICAS are charming spring flowers. There is amongst them such a wealth of beauty, that a garden can be made attractive with them alone for several weeks in early spring. *H. triloba* is the species from which the chief beauty is derived, and it yields a considerable variety of colour, there being the single-flowered red, blue, pink, mauve, lilac, white, and purple, and double-flowered sorts of the same colours except white. The culture is very simple, provided they are planted in light soil enriched by well-decayed manure, and the position be partially shaded. The old plants are much benefited by an annual top-dressing of decayed manure. They may be propagated easily by division after flowering, and the following season each divided portion will have made a good flowering tuft. *H. angulosa* is also a very fine plant, twice as large in

every part as *H. triloba*, and equally easy to grow. The flowers usually are a soft sky-blue tint, but there is a white variety, still rare. Good tufts of this plant in the rock garden in spring are highly attractive. It may be propagated by division like *H. triloba*, but may also be raised from seeds. Indeed, it is not uncommon for both kinds to sow themselves in light soil.

— THE best time to plant CARNATIONS AND PICOTEEES is October, as they then become thoroughly established in the soil. The most suitable soil for them is a good marl, from which all wireworms should be removed. The plant is, however, very accommodating, and will grow in nearly any soil, only if light it should be pressed firmly around the plants, but if strong it should not be pressed so firmly. If the ground is poor, some well decomposed manure, such as that from an old hotbed, should be dug in and well mixed. Before planting, it is advisable to give a sprinkling of lime, which should be lightly forked in mixing it well with the surface soil.

— UNDER the title of THE GARDENING WORLD, Illustrated, Mr. Wynne, who was for many years associated with the *Gardeners' Chronicle*, has commenced a weekly penny horticultural newspaper. It is well done, so far, and we wish it the success which it deserves, and which the well-known energy of the editor will go far to secure for it. This makes the fourth penny gardening weekly, and truly the constituency is large enough to support them all, if they can but make themselves sufficiently widely known.

— THE proper kind of SULPHUR for GARDENING PURPOSES, is the Black Sulphur, *sulphur vivum*. This being unpurified has not lost thereby the properties which are necessary for the destruction of mildew and other pests.

— MR. J. B. MOORE's method of making LIQUID MANURE, as we learn from the *American Gardeners' Monthly*, is to get a large tub and place two strips of board across it, and on these to put a flower barrel filled with manure, and having holes bored in it. Water is then poured into the barrel, and leaches through into the tub. It must be diluted for use.

— A NEW Iresine, to be called IRESINE COLEMANI, has been raised by Mr. W. Coleman, of Eastnor Castle gardens, and will, we think, be a great acquisition. It is of the *I. Lindeni* type, with the same ovate lanceolate leaves, but these of a deep blood red, traversed by a costa, and side veins of bright crimson. In the sunshine the colours —two shades of crimson—are intensely rich and velvety. The stem in every part is of the same bright crimson as the ribs of the leaves. The plant is of compact growth, hardier than *I. Lindeni*, looking fresh and bright when that variety has lost all its leaves. This bright colour is not exceptionally attributable to the present fine season, having been equally pronounced last year. Mr. Coleman states that from a distance his "bed of twenty feet by six looks like an immense mass of some giant *Alternanthera*, but being so much hardier succeeds well where the other fails." When grown in pots for spring furnishing, it takes on a vivid colour which is most thoroughly effective.

In Memoriam.

— MR. CHARLES RYLANC died at his residence, Ormskirk, Lancashire, on August 20, in his 73rd year. In early life he purchased a small piece of land, and commenced business as a nurseryman, growing Cucumbers in frames covered with oil paper made by himself. He was soon able to buy a small greenhouse, and commenced growing and exhibiting plants, especially show and fancy Pelargoniums; he was also a great lover of florists' flowers, especially the Dahlia, for which he has obtained hundreds of prizes. It is stated that at the time of his death he had no less than 4,000 prize cards, including 2,250 1st prizes, as well as a Silver Cup for a collection of flowers in 1870, a Bronze Medal for a collection of cut flowers obtained in 1874, and later on a Gold Medal for British Ferns in 1879 at Manchester, not to mention other awards. He was a shrewd honest man of business, and highly respected by his professional brethren.

— HENRY G. BOHN, Esq., died at his residence at Twickenham, on August 22, in his 89th year. He will be longest remembered as a publisher, to whose insight and energy students of almost all departments of literature and science owe a deep debt of gratitude. He was a Fellow of the Royal Horticultural Society in its palmy days, and a staunch supporter of the Gardeners' Royal Benevolent Institution. As a horticulturist his garden was remarkable for its large collections of hardy deciduous shrubs and Conifers.

— JAMES HENRY MANGLES, Esq., died at his residence, Valewood, Haslemere, on August 24, at the age of 52 years. Courteous and urbane, with extensive knowledge and full sympathy with all horticultural pursuits, Mr. Mangles was a few years ago elected a member of the Council of the Royal Horticultural Society, where he did useful work. As a horticulturist his speciality was the Rhododendron, and of these he cultivated those species which require some slight protection, in long canvas houses with straight sides and ridged roof, which he called his cathedral houses, and from which the canvas blinds could be removed at will. The plan answered admirably, securing not only flowers but vigorous growth.

— GEORGE BENTHAM, Esq., the Nestor of English botanists, died on September 10 in his 84th year. As Secretary to the Horticultural Society many years ago, as President of the Linnean Society for several years, as an indefatigable observer and writer on botanical subjects, more especially as the author, in conjunction with Sir Joseph Hooker, of the "Genera Plantarum," he will be long remembered not only as one of the foremost botanists of his time, but as one who, during a long life, has most particularly helped on his fellow-workers both by example and precept.

— SAM MENDEL, Esq., died at Nightingale Lane, Clapham Common, on September 17, at the age of 70 years. He was one of the most influential and enterprising of Manchester merchants, and his garden at Manley Hall was one of the most renowned in the district. Mr. Mendel retired from business some years since, but did not relinquish his liberal and discriminating patronage of gardening and of plant culture.



W H Fitch, del

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Bijou Lemon.

THE BIJOU LEMON.

[PLATE 621.]

THE Bijou Lemon, of which the accompanying illustration is a very accurate and charming portrait, is not (according to Sir J. D. Hooker, to whom I sent some of the fruit) a true lemon, but a lime. If not a lemon, it possesses a singularly lemon-like and piquant aroma, far surpassing the lemons in ordinary use. From its diminutive size it cannot of course be more than a luxury, as the cultivators of lemons in Italy and Spain would scarcely care to accept its produce in exchange for the profuse harvests yielded from their lemon trees. It is, however, well worth the attention of English horticulturists on account of its ornamental qualities.

The plant is hardy enough for an ordinary

conservatory; very fertile in producing fruit, and very ornamental, as the bright golden yellow fruit will remain on the tree for six months without changing; the tree is also a pretty evergreen.

Side by side with the Bijou Lemon or Lime, I have a variety under the name of Small Lime, identical in flower, size of fruit, leaves, and habit of growth, but bitter and very acid. I need not say that these two varieties have been kept very distinct from each other; indeed, I have not thought it necessary to cultivate the latter, but I have retained the sort from the interest which attaches to this singular variation of fruit, notwithstanding similarity in growth.—T.

FRANCIS RIVERS, *Sawbridgeworth*.

DESCRIPTIONS OF THE BEST CARNATIONS, &c.—IX.

WE come now to what is known as the Miscellaneous Class, consisting of all such flowers as will not come into the Carnation and Picotee groups already passed under review. They are called—

SELFS, FANCIES, AND YELLOW GROUNDS.

This, last class of all, and the one most recently denominated, is undoubtedly most popular, and though by no means representing the highest order of development to be found in this beautiful tribe of flowers, is, and probably for that very reason, the one easiest understood. To the florist, who has ever, in his moments of leisure, the many beauties, and the illimitable variety of flakes and bizarres in his mind's eye, and who reproduces them from the sure storehouse of his memory for his daily enjoyment, it seems strange that there should be ignorance of their meaning among men, but strange as it seems, he knows it none the less to be true, and that even with some professional men of much attainment and high position, there is so little knowledge on these points, that the subjects are kept carefully at arm's length, lest this lack should be betrayed. With selfs and fancies however there is much less danger of misinterpretation. They speak for themselves, and valued most for their breadth of effect, their fragrance and attractive colours, they are outside the rules applied to higher development. "Ah, Mr. D.," I fancy I hear some one of our good friends the critics say, "We have you now; you have been saying the florists have no hard and fast rules, and now you say a certain section of the tribe escapes these rules." Yea, verily, my good friend, I have nothing to

recall, and you do not catch me tripping. I say thus much, we do not apply the higher standard to the lower development, just as the attainment of the Senior Wrangler is not asked for in the man under examination for his Little-go. We do not deny the beauty of the class; we feel it deeply, and we rejoice to know the public shares our appreciation and applauds our work.

Let me however proceed to my list. It will be unnecessary to give individual descriptions, although there is marked individuality in the class, but as this individuality is set up mainly by shades and inflections of colour, it would become monotonous to repeat these at length, and therefore I propose to group them in the main in sections of colour.

The finest WHITE SELFS known to me are: Bridesmaid (Gorton), Diana, a seedling of my own, The Bride (Hodges), Virgo (Fletcher) a flower of very neat habit, and W. P. Milner (Fisher).

ROSE OR PINK SELFS.—Alice Ann Mary, Cynthia, Dot, Euphrosyne, Lady Constance, Mary Morris (Smyth), Mrs. Holiday, Mrs. Southgate, and Rosalind.

PURPLE OR PURPLISH MAROON SELFS.—Are-thusa, Cassy, Gog, John Southgate, and Neptune.

SCARLET SELFS.—Cardinal, Cinto d'Orion, Coronet (Barron), Jupiter, and Lucifer.

ROSY SCARLET.—Mrs. Logan, Mrs. Huson Morris.

ROSY SALMON.—Mrs. Dodwell.

CRIMSON SELFS.—Dora, Ida Mary, John Soper.

RUBY CRIMSON SELFS.—Autolycus, Dandie Dinmont, Dominie Sampson, and Little Harry Bertram.

FLESH COLOURED OR BLUSH WHITES.—Mrs. Page, Mayer, and The Governor (Cross).

YELLOW SELFS.—Florence (Wallington), a glorious introduction, not merely by far the best yellow self, but one of the finest of any class of selves, and having a fine robust habit, promises to be of signal service to the seedling raiser; King of Yellows (Abercrombie), and Lady Rosebery (Turner), the latter a light primrose, pretty as a flower, but a very indifferent grower.

FANCIES. — *Searlet Bizarres*: Apollyon, Saladin, Sir Toby Belch, and Smike.

Crimson Bizarres: Fimbriata, Othello, and The Moor.

Scarlet and Maroons: George Duffield, Hector, Hercules, Oberon, Touchstone, and Venus.

Crimson and Maroon, Rose and Crimson, or Crimson and Purple: Brilliante, Huson Morris, Madame Zwilchenbart, Mrs. Champness, and Mrs. Mostyn Owen.

Crimson Flakes: Adonis and Mrs. Pratt.

Chocolate Flake: Saturn and Satellite.

White, flecked and flaked with rose, extra fine.—Titania. *Yellow ground, margined or marked with rose, crimson, or purple*. Of this class my experience is limited. They have been ever capricious in growth, and somewhat finical of requirement. At Derby the cold dour atmosphere was distasteful to them, and at Clapham no attention sufficed to induce sound growth. Since I have been here we have had more success, but that has been relative only, and until we can get a race like Mr. Wallington's Florence, I fear successful cultivation will be the exception rather than the rule with these flowers. The best of those I have grown are Alice Waite, Bullion, Carnation, Flavius, Miss Watson, Princess Marguerite, and Prince of Orange, all save the latter of Mr. Turner's raising.

The above was written in the early part of this year. During the season some very beautiful additions have been made. Of those, or part of those shown by Messrs. Veitch & Sons at South Kensington, on July 22, particulars are supplied by Mr. Douglas in his notes of new Carnations and Picotees, on pp. 134—135. I was physically so prostrate on that day that I was quite unable to attempt any minute criticism of the fine selection of varieties brought forward by the Messrs. Veitch. I saw enough, however, to be assured they are of great value, and I do not question the encomiums of Mr. Douglas were fully deserved. But upon one remark I desire to offer a brief comment. Mr. Douglas says, "Harvester well deserved the First-class Certificate it obtained, and will probably be the most popular of all. It is of the same colour as Florence, buff or apricot coloured, and smooth on the edges, whereas Florence is fringed." I detract nothing from

the merit of Harvester, which I gladly assume; but I suspect there lurks an error in that *whereas*, which has been the germ for many an evil word launched against florists for their hard and fast and arbitrary lines. It is quite true the Rev. George Jeans, in his essays on the "Philosophy of Florists' Flowers," informs us in his chapter on form, "that some forms are better suited than others to set off colours to advantage, as a *smooth* petal (the italics, as with my quotation from Mr. Douglas, are mine) *exhibits its markings* more perfectly than a wrinkled one can," and every one conversant with the subject will fully sustain Mr. Jeans on the point. But when we come to *self* flowers, we require to go to another chapter, that on *variety*, and determine its necessities and influence before we can arrive at sound and lasting conclusions. I have no intention to travel over the whole ground involved in this heading. To do so I must repeat *verbatim* the words of the chapter. I will only quote the opening sentence. "Let us consider the effect of *variety*. This is even more essential to a pleasing form than unity is." Again, "From whatever source, however arising, it is essential that the florist's flower which would claim a high position should not be deficient in this. . . . Our copy-books enunciate a philosophical truth, when they impress upon the child what the child knows better than any philosopher, that it is variety that is charming."

Well, then, in the self what is it gives variety? "It is produced by form, contrasts, brilliance, or an attractive colour as a whole," says Mr. Jeans, that indeed which, within certain definable limits, gives life and variety, as against formality and primness. During the past season I was much impressed with this, not, however, let me say, a new experience. We were blooming W. P. Milner, white self, for the first time, in contact and contrast with our old favourite The Bride. W. P. Milner has a faultless petal, smooth, and gently cupped perfectly to the centre; it is pure in colour, and perfect in its outline. The Bride is fimbriated, generally reflexed, and thrusts herself frequently with a palpably expressed indifference to the severe proprieties of form, into bloom. But the popular voice chose The Bride, and I heartily endorsed, for the reasons I have given, the choice of my friends and visitors.—E. S. DODWELL, Oxford, Oct., 1884.

RUSSELIA JUNCEA.

THIS is a very showy plant when in flower, and merits a place in every collection. It produces a great profusion of trumpet-shaped scarlet flowers during the months of August and September,

and it is very striking and effective when grown as a wire basket plant and suspended from the rafters of the conservatory or stove. It grows well in an intermediate house between a stove and greenhouse, where the temperature ranges between fifty and sixty degrees, except during the summer months when it rises higher. It grows freely in a compost of turf loam with a little peat and sand. During the season of growth the plants should be frequently syringed to keep them clear of insects. It is easily increased by cuttings of the half ripened branches prepared in the usual way, put into a pot and placed in a little bottom heat.—M. SAUL, York.

GRIFFINIA ORNATA.

THIS fine addition to our flowering stove or intermediate-house bulbous plants was introduced by Mr. W. Bull, of Chelsea. It is a native of Brazil, from the district of Rio de Janeiro, whence so many fine things that embellish our warm stoves have come. It belongs to a select genus, all of American origin. In general habit this new-comer somewhat resembles *Griffinia Blumenavia*, and also *G. parviflora*, although the latter bears very much smaller flowers, but, like the present subject, has its flowers tinged with pale lilac. The flowers are much stouter in both the petals and sepals than *G. hyacinthina*, which is perhaps the best known species in cultivation, and one of the most useful of autumn flowering plants. It is a very free blooming plant, the moderately strong bulbs producing a couple of scapes which rise to a height of from a foot to eighteen inches, surmounted by a score or more flowers each, the individual heads nine or ten inches across; each flower as it first appears is suffused with soft blush lilac, fading off as they get older to white. It is altogether a handsome plant, the rich green ample leaf curving most gracefully, setting off the stately heads of flower on their erect stems to advantage.

Like the other better known *Griffinias*, it flowers from the mature bulbs of the preceding summer's growth, and no doubt the treatment with which they succeed will answer for this. Growth commences immediately the plants have done flowering, and any potting that may be required should then be carried out; but they are plants that do not need so much root-

room as things of more rapid growth and increase. The drainage must be made perfect at first, as the plants do not require, nor should be disturbed every year. Good yellow loam suits them in every way, mixed with enough sand to allow the water to pass through it; the plants after blooming will keep on growing slowly through the winter in a night temperature of about 58°, with a rise of 6° or 8° in the day-time, increasing the heat as the days lengthen. Through the early part of summer a day and night temperature such as required for the generality of stove plants will answer, keeping it in a light position, although a little shade in the middle of the day in very bright weather will be beneficial.

As the autumn advances the foliage and bulbs will have completed their growth, and to solidify them less water should be applied, and shading dispensed with. As soon as the flower-stems make their appearance more water should be given. They increase by division of the bulbs, which, when in good condition, produce offsets, yet slower than most plants of similar habit.—T. BAINES.

DENDROBIUM SUPERBIENS.

THIS is one of the most beautiful and most lasting of our coloured Dendrobiums, its long upright spikes of violet purple flowers being most freely produced, and lasting from six to eight weeks in beauty. Even when cut from the plant the flowers last over a month in the dwelling-house under favourable circumstances. It is now well in bloom with Mr. B. S. Williams at Upper Holloway, and the Orchid-houses there have not been without plants of it in bloom ever since the spring. Mr. Williams grows it in shallow pans in a warm house, and suspended in full light, where it gets the morning and afternoon sun. It requires abundance of water when growing.—J. O'B.

TEA ROSES IN AUTUMN.

WHERE a light span-roofed greenhouse has been set apart for the culture of Tea Roses, either in pots or planted out, it is not difficult to obtain a good supply of these valuable flowers in the autumn months. Those who have the means, and are fond of Roses, would find money well-invested in building a house for the special culture

of Tea Roses, even as a safe investment for money, for such a house, if judiciously furnished and well managed would give a supply of cut Roses sufficient to pay good interest on the capital employed. It is not given to every one to grow Roses well enough under glass to make them pay; but success would be assured more often if attention was given to the following points:—

In the first place the Rose-tree must be judiciously potted. Some persons fancy if a Rose bush is potted into the centre of a large pot, corresponding large results will follow. This is a great error. Then the soil is often too rich, and too heavy. If the loam is heavy some turf peat may be added to it, as well as a portion of leaf mould and decayed stable manure. Under glass, the Rose suffers much from the attacks of green-fly, but this must be destroyed on its first appearance by fumigating. Mildew is quite as destructive; it sadly disfigures the leaves, unless it is destroyed on its first appearance. A small portion of flowers of sulphur dusted amongst the leaves will at once destroy it. An easy way to keep it from the plants altogether is to paint the hot water pipes with a mixture of flowers of sulphur, and the continual fumes arising from the pipes will keep the parasite away. The experienced cultivator acts upon the assumption that green-fly and mildew will attack the Roses; and that it is better to keep them off, than it is to destroy them when considerable mischief has been done. Another thing must be thought of, and that is that Tea Roses should not be placed out of doors at all, but kept under glass all the year round. See that they and all the surroundings are clean, and the results will more than compensate for any extra trouble that may be incurred.

This has also been a good season for autumn bloom out of doors, especially where the Roses were taken care of—that is, kept clean, well watered, and mulched over the roots with decayed manure. Indeed, I was led to pen these remarks on Tea Roses after enjoying the pleasure of inspecting a very complete collection in the garden of Samuel Barlow, Esq., J.P., Shimdda Hir, Llandudno. The garden is on a fertile part of the Little Orme, and within a few minutes walk of the beach at Llandudno. There are two things which have been the principal factors in bringing these Tea Roses

to such a high state of perfection, and that is soil and climate. Few gardens can command such a deep fertile mountain loam, as is to be found here, fewer still the soft equable mountain air, during the autumn months. Last but not least, there has been skilful culture.

Mr. Barlow told me that he was tempted to invest to a large extent in Tea Roses, when he found that comparing the temperature of Chester one cold night in November with that of his mountain home on the Little Orme the difference in favour of the latter was 11° Fahr. The largest proportion of the Roses is worked on the seedling Briar, and it is evidently the best stock for them, giving large fine flowers, and a more vigorous growth than the Roses worked on the Manetti, although this last stock gives excellent results also, and more dwarf habit, and a great profusion of bloom; although the Roses as a rule are not so large, they have however given considerable satisfaction.

I do not think that Mr. Barlow has planted any Tea Roses on their own roots, but this is a system of culture that has much to recommend it. Many of the Tea Roses, as I have proved conclusively, grow quite as vigorously on their own roots as they do on any kind of stock; and when cultivated in that way the more suckers they throw up the better. I found *Madame Falcot* gave a more vigorous growth and produced more Roses on its own roots than in any other way. I took the names of the best kinds in Mr. Barlow's garden for flowering in autumn. They are: *Anna Ollivier*, rosy-salmon, full size, a distinct and good kind. *Amazone*, a strong growing variety, lemon colour, pretty in the bud. *Perle des Jardins*, a large handsome Rose of a pale yellow colour. *Madame Hippolyte Jamain*, a well-known good kind. *Ma Capueine*, blooms very freely. *Madame Charles*, soft Apricot. *Souvenir de Paul Neron*, white with a slight flush of rose at the edge of the petals. *Madame Villermoz*. *Comtesse Riza du Parc*, salmon rose, large and fine. *Etoile de Lyon*, sulphur. *Madame Angèle Jæquier*, blush, full flowers. *Devoniensis*, very fine always. *Alba Rosea*, large, finely formed, and full. *Madame Joseph Schwartz*, a pretty blush white globular Rose. *Souvenir d'Elise Vardon*, was in fine bloom. *Bouquet d'Or*, a good Rose of the Gloire de Dijon type. *Madame Chedane Guinoisseau*, pale yellow, flowers very freely, and pretty.

William Allen Richardson, a Noisette, very pretty as a bud, deep orange with a shade of yellow. *Madame Lambard*, salmony-rose, handsome flower. *Catherine Mermet*, flesh, one of the best. *Hon. Edith Gifford*, rosy-salmon, a fine new Tea. *Reine Marie Henriette*, deep rosy red, a very distinct hybrid form. *Safrano* and *Madame Falcot*, both charming in the bud state. *Jean Ducher*, a fine globular Rose. *Marie Van Houtte*, yellow. *Madame Berard*, a neater flower than *Gloire de Dijon* but in the same way. *Beauté de l'Europe*, brownish yellow.

The above Roses were not only in fine bloom, but they were making vigorous healthy growths, which promised to flower as long as the weather would permit them to do so.—
JAMES DOUGLAS, *Great Gearies, Ilford*.

LORD BEACONSFIELD RASPBERRY.

I WAS much pleased with the figure and description of Mr. Faulkner's new Raspberry in a recent number of the FLORIST, and as my lot is cast not far from Inkpen, I took a trip to see it, and was much gratified with the sight. The canes are stout and long, nine to ten feet high, as if they were under the best of treatment, but I found to my surprise they were not so. The soil is very poor sandy stuff, which is sufficiently shown by the fact that the land at Inkpen lets for 5s. per acre; indeed it is almost worthless. Still this Raspberry far surpassed mine, and though I manure mine every autumn, and mulch them every summer, they are very far behind this seedling, Lord Beaconsfield. The fruits are much larger than any of my sorts—I grow Prolific, Fastolf, Red Antwerp, and Yellow Antwerp—and the crop heavier by ten to one. If any one is about to plant Raspberries this autumn I am sure he cannot do better than to plant Lord Beaconsfield.—WILLIAM PHILLIPPS, *Gardener, Chilton Lodge, Hungerford*,

THE SHANKING OF GRAPES.

IN an article communicated to the FLORIST AND POMOLOGIST entitled "Vine Borders," and which appeared in November, 1883, I gave it as my opinion that this dread scourge of the Grape grower is the result of starvation. And as anything that throws light on the cause, or suggests a remedy for such

a common enemy is acceptable, I make no apology for recording what I consider a conclusive proof of that assertion.

In a greenhouse here in which Grapes are grown, the Grapes two years ago, 1882, shanked very much, so as to disfigure very many of the bunches. In October of that year I had the soil of the border, which is outside, removed so as to uncover the greater portion of the roots, and having secured a quantity of turf from the Deer Park, old and tough like that from a down, the grass on it looking as if it had been newly shorn, I had it laid grassy side downwards all over the roots four or five turves deep, the entire width of the border. The old soil, which was very good and of the same nature as the turf just used, viz., a rather light warm loam, to which had been added a quantity of prepared bones, was replaced. In 1883 the Grapes again shanked, although not to the same extent, and finished better. This year they have finished beautifully, and there is not a shanked berry in the house.

In dealing with this vine border I learned what may be useful to some of your readers. I have said that a quantity of prepared bones had been added to the soil comprising the border, apparently dug in as a top-dressing. Wherever the bones came in contact in any quantity with the roots, the latter were dead—in fact entirely rotten; and I have no doubt that the shanking of the Grapes was due in a great measure, if not entirely, to the injudicious use of bones. Thus, however valuable bones may be in the formation of vine borders (and they appear to be almost universally applied to that purpose), they ought to be used with judgment, and thoroughly incorporated with the soil, and on no account be applied in quantities direct to the roots. Regarding stimulants, my own opinion is that where old tough turf of a light loamy texture, either from an old park or down, can be had, very little else is required; and a border formed and treated as directed in the paper referred to above, will last for a good many years.

While on the subject of Grape growing, the mind naturally reverts to instances where vines have produced enormous bunches of beautiful Grapes for three or four years, but have then been heard of no more. On inquiry the reply usually is, Oh! they shank badly and seldom produce a respectable bunch. Nothing can be more unsatisfactory, and especially as there is no difficulty in securing the very highest standard of excellence, viz., really eatable Grapes, with moderate borders and with a greater degree of permanency in the way suggested, than is usually obtained from large borders reeking with stimulants.—HENRY ECKFORD, *Boreatton Park, Baschurch*.

REGISTER OF NOVELTIES.

NEW PLANTS.

AÉRIDES SANDERIANUM, Rchb. f. (Gard. Chron., N. S., xxii., 134).—A grand novelty, belonging to the Odoratum section, and allied to *A. Lawrenceanae*. It is of vigorous habit, with short broad retusely bilobed leaves, and long drooping spikes of very large and very handsome blossoms, which from the tip of the dorsal sepal, to the tip of the incurved spur measure fully an inch and a half. The sepals and petals are reflexed at the edges, oblong obtuse, the lateral ones semiovate from being produced on the lower side where they are adnate to the back of the lip, and the petals being somewhat narrowed to the base; all these parts are white tipped with magenta. The lip is three-lobed and large spurred, the spur being half an inch wide, the side lobes dolabriiform clear yellow crispy and toothed at the edge, and the middle lip closely enfolded is also crispy and toothed at the edge, of a rich purple magenta, looking like a purple crest, and contrasting finely with the yellow of the side lobes; the lower part and tip of the spur is greenish-yellow. The comparatively large size, and bright colours give to the flowers a peculiar beauty; Eastern Tropical Asia; F. Sander.

CALLIRRHOE LINEARILoba, A. Gray.—A very pretty Malvaceous novelty, likely to form an effective border plant. It is a hardy perennial, producing numerous trailing stems radiating from the crown, and having pedato-partite dark green leaves, roundish in outline, and cut in a bipinnatifid manner almost to the base into narrow lobes one-eighth of an inch wide. The flowers are nearly two inches across, of five broad obovate petals, which are of a pretty tint of lilac in the centre with a broad even margin of white on each side, forming altogether a pleasing striped flower. It is a native of Texas. Introduced by Mr. W. Thompson, of Ipswich.

GYMNOGRAMMA LATHAMIA, Moore (Gard. Chron., N. S., xxii., 360).—A very handsome hot-house fern, supposed on good grounds to be a hybrid between *G. decomposita* and *G. schizophylla*. It has an erect caudex from which the fronds spread out in an arching manner. The fronds are oblong lanceolate 2—2½ feet high, quadripinnate, the obliquely-elongate triangular pinnae being shortly stalked and ascending, and the pinnules sessile deltoid cut down to the rachis into small narrow segments, the larger of which are forked or trifid and the smaller entire. The sori form short forked lines on the narrow segments, the spore-cases being imbedded in a white waxy secretion. The stipes and main rachis, which are stout, are of a bright chestnut brown. It is altogether a very handsome novelty amongst ferns. Raised in the Birmingham Botanic Garden; Mr. W. B. Latham.

HÆMANTHUS KATHERINÆ, Baker (Bot. Mag., t. 6778).—A noble greenhouse bulb of the Amaryllidaceous order, with about half-a-dozen leaves whose stalks are sheathed so as to form a short cylindraceous stem, and whose blades are elliptic-acute or oblong, with about nine or ten nerves on each side the costa, these being united by a series of transverse nervules. The scape is contemporary with the leaves, ten to twelve inches high, and supporting a globose umbel of scarlet flowers with linear obtuse spreading segments, and projecting stamens 1½ inch long; Natal; Kew.

VRIESEA FENESTRALIS, E. Morren (Belg. Hort., 1884, t. 4—5).—A very handsome Bromeliad, with a rosulate tuft of short broad arcuate concave leaves, roundish and mucronate at the tips, of a pale green colour tessellated with crowded cross bars of a deeper green. The flower scape is erect, with an elongated distichous spike of yellow flowers.

The chief beauty of the plant resides in its handsomely marked leaves, the surface between the cross markings on which, is in many parts as white as ivory; Brazil, Rio de Janeiro, whence it was introduced by Linden in 1875; M. Peeters, and MM. Jacob-Makoy.

NEW FLOWERS.

AURICULAS (Show).—*Conservative*, white edge, one of the very best of its class, a handsome plant, the trusses borne well above the foliage, edge pure white, black body, colour, rich gold tube, green foliage; and *Silvia*, white edge, a cross between George Lightbody, grey edge, and Robert Trail, grey edge; vigorous grower, truss large, pips well arranged, edge usually white, at times silvery grey, dark ground, beautiful gold tube, quite distinct; both raised by Mr. J. Douglas; C. Turner.

BEGONIA (double) Felix Crousse, a dwarf growing fully double variety, with large handsome rich deep scarlet flowers, and a deep green foliage contrasting admirably with the flowers; 1st-class Certificate R.H.S., Oct. 14; W. Bealby. *King of Kings* (single), a very fine single-flowered variety, with large, thick, well-formed, blood crimson flowers; good habit, and very free; 1st-class Certificate R.H.S., Oct. 14; H. Cannell & Sons.

CARNATIONS.—*Arthur Brown*, S.B., a full sized, finely formed flower, in the style of Philip Thomas; extra quality. *Black Prince*, C.B., rich crimson, and dense purple on a pure white ground; medium size; extra. *Captain Owen*, C.B., large, boldly and definitely marked; a fine variety. *Captain Preston*, C.B., large, and highly coloured. *Dolly Varden*, R.F., a flower of great refinement and exquisite form; one of the very best of its class. *Dorothy's Sister*, R.F., a lovely variety, with the pure white ground and delicate colour of "Dorothy," but less full of petals; a beautiful variety for decorative purposes, though lacking the depth of colour at present required for class showing. *Dr. Briscoe*, C.B., a seedling from J. D. Hextall, with the rich colours of that variety; a full flower; fine. *Dr. Symonds*, C.B., a highly refined flower; lightly but very definitely marked; smooth and full; very fine. *Frank Tomes*, S.F., a large, richly coloured variety; smooth and of fine form. *George Melville*, P.F., a glorious variety; large, smooth; finely marked and beautifully formed, with a white ground of spotless purity; a fine addition to a sparse class. *H. J. Tyler*, S.F., a fine show variety; bright and beautifully marked. *Martin Rowan*, P.F., a high-class variety, differing from George Melville in the density of its colour; will take high rank in its class. *Master Slender*, P.F., smaller than George Melville or Master Rowan, but in all other respects equal. *Miss Gane*, P.F., rich rosy purple on a pure white ground; a seedling from Thomas Moore, which it follows in form and habit. *Mrs. Francis Whitbourn*, C.B., large and finely marked with rich colours; sometimes a P.P.B. *Mrs. Gane*, R.F., a large, well formed, richly marked variety; smooth and very pure. *Mrs. Symonds*, R.F., large, full, and richly marked with a deep rose; pure and smooth. *Mrs. W. M. Hewitt*, R.F., a seedling from Mrs. Tomes; like its parent, richly marked with brilliant carmine rose. *Polly Holiday*, R.F., like Dorothy's Sister in the shade of colour; very pleasing. *Robert Marris*, S.F., a flower of great refinement and exquisite form; extra. *T. A. Welton*, S.F., a full sized, refined variety; richly marked with brilliant scarlet; smooth and very pure. *Thomas Anstiss*, P.P.B., a splendid variety, grandly marked with rich deep colours; extra. *Tom Chapman*, S.F., large, smooth, and beautifully marked with rich scarlet on a pure white ground. *Tom Lord*, S.F., a seedling from Thomas Tomes, with the rich colour, pure white, and definite markings of the parent, and

a larger size; also it comes earlier into bloom. The above are all being sent out by Mr. E. S. Dodwell.

CHRYSANTHEMUMS (Japanese).—*Anna Delaux*, yellowish red, each flower edged with deep golden yellow; *Aurore Boreale*, pure yellow, and light salmon, with golden centre; *Brise du Matin*, mauve-rose, white centre, a very handsome variety; *Belle Alliance*, brick-red and light chamois, golden centre; *Colibri*, dark crimson, with golden centre, a distinct and remarkable variety; *Emblème*, dark crimson, striped and tipped with dark yellow; *Frizon*, dark canary yellow, and soft light canary, handsomely curled florets; *Fernand Feral*, rose and light mauve, a very distinct variety; *Fleur des Bois*, deep blood red and light brick colour; golden ball-like centre; *Madame de Serin*, amaranth lilac-rose, streaked with white and pure white centre; *Mdelle. Antoinette Bremel*, amaranth and carmine rose, white stripes, tubes silvery white; *Mignon*, soft lilac rose and violet colour, with silvery centre; *M. Leon Brunel*, reddish-brown, with gold points; *M. John Laing*, deep crimson red, yellow centre, flowers of large size; *Mon. Cochet*, silvery white, the reverse rose and violet; *Souvenir du Japon*, large rosy lilac and light chamois, with golden centre, extra fine; and *Souvenir du Caire*, brick-red, each petal edged with golden yellow; S. Dixon & Co.; H. Cannell & Sons.

New varieties raised by Mr. Mahood:—*Mr. Mahood*, a noble flower, creamy white changing to pure white, petals long and thread-like, a vigorous grower; *Joseph Mahood*, blooms very large, with full centre, narrow florets, ground colour yellow, curiously dotted and striped with red; very distinct; *Mrs. Townshend*, very full handsome flowers, of a rich claret crimson colour, yellow on the under side of the florets; Mahood & Sons; H. Cannell & Sons. New varieties raised by Mr. A. Salter:—*Annie Hollorn*, centre delicate white, tinged with pale lilac, the outer florets rosy lilac, large and fine; *Comet*, the centre bronzy reddish rose, passing to golden yellow; the outer florets reddish carmine, shaded yellow, the reverse nankeen yellow; *Distinction*, centre rich golden yellow, more or less striped with rosy scarlet, outer florets reddish crimson, tipped with yellow; a large reflexed flower; *Gloria Solis*, bright golden yellow, the outer florets shaded with orange; a very large and showy variety; *Salterii*, deep red, passing to scarlet and shaded carmine, many of the centre florets golden yellow, spotted scarlet, large and full; and *Single White*, the outer rays broad and spreading, pure white, very distinct; H. Cannell & Sons.

CHRYSANTHEMUMS (Large-flowered Incurved).—*Bruce Findlay*, a sport from Empress of India, colour pale canary yellow, good habit and character; fine for exhibition. *Bendigo*, a sport from the white Mrs. Heale, colour rich gold; fine for exhibition. *Carmen*, large flower, dark red, pale, or brilliant gold in the centre; a very fine and distinct variety. *Lord Alcester* or *Princess Imperial*, a primrose-coloured sport from Empress of India; a distinct and noble flower. *Mrs. Todman*, rosy mauve, finely incurved florets, silvery reverse; a splendid globular flower, very distinct; H. Cannell & Sons. *President Sanderson*, a sport from Lady Slade; colour purple tinted with buff, fine form, large in size, finely incurved.

CHRYSANTHEMUMS (Pompon).—*Elise Layallon*, yellowish-rose, deep golden yellow centre. *Etineelant*, brownish-crimson red, with golden ball in the centre; a very distinct variety. *M. Deleuil*, snow white, pointed and edged with rosy carmine; in the way of Snowdrop, but distinct. *Pompon Rose*, rosy lilac, the base of the petals pure white, and the points golden; golden centre, very pretty. New varieties for the autumn by S. Dixon & Co. and H.

Cannell & Sons. *Eclipse*, bronzy red, tipped with golden yellow; a fine semi-globular flower; H. Cannell & Sons.

DAHLIAS (Show).—*William Dodds*, golden buff, with a centre of reddish buff, and distinctly tipped with pale gold; a very pretty and taking flower of fine form, and full of promise. *Edwin Cooling*, yellow ground, edged with buff, the reverse of the petals pink, and reddish in the centre. *Harry Turner*, rich crimson maroon, flushed with brilliant crimson; very bright and effective, and very promising. *Lord Salisbury*, yellowish buff ground, suffused with orange buff, the reverse of the petals pale red, the centre tinted with red, very promising; Rawlings Bros.

DAHLIAS (Fancy).—*Henry Eekford*, golden yellow striped and flaked with bright deep crimson; a showy and effective flower, of good properties. *Charles Turner*, dull buff ground stained with pale cinnamon, and heavily flaked and striped with maroon. *W. G. Grace*, pale lilac ground, much streaked, and flaked with deep crimson; Rawlings Bros.

DAHLIAS (Pompon).—*Frau Emil Hewick*, soft pink, tinted on the edges with white; small, compact, very pretty, and distinct. *Le Petit Barbier*, white, small, and compact; good outline and petal; 1st-class Certificates R.H.S., Oct. 4; H. Cannell & Sons.

PICOTEE.—*Madame Corbin*, H.S.C., a full-sized flower, moderately double, good smooth broad petals, heavily edged with scarlet, quite distinct; raised by Rev. C. Fellowes; C. Turner.

ROSES.—*H. P. Longfellow*, rich violet crimson, form of Charles Lefebvre, indeed it may be called a violet form of this rose; strong vigorous habit, a desirable addition to the hardy perpetuals. *H. P. Madame Norman Neruda*, a new flower, of the Beauty of Waltham class, but of a lighter cherry carmine, of medium size, perfect form, and a good autumnal rose; very vigorous. *H. P. Pride of Reigate*, the first striped Hybrid Perpetual Rose; it is of the light crimson of Comtesse d'Oxford, from which it sported, charmingly striped with white; constant and novel. *Tea Scented Gloire Lyonnaise*, a decided novelty, very large, very fine form, good petals and habit, sweet tea scent, clear chrome yellow colour, the edge of the petals silvery white; raised from Baroness Rothschild and a seedling from Madame Falcot; Paul & Son, Cheshunt.

NEW FRUITS.

APPLE, Jacobs' Strawberry.—An excellent early Apple, of large size for an early fruit, and of very handsome appearance from the high colour of the striping. Fruit large (about 10 inches in circumference), oblate, sometimes slightly conical, uneven at the base, distinctly angular near the crown. Eye closed, sunk in a small deep strongly-ribbed basin. Stalk short stout, sunk in a broadish and tolerably even cavity. Skin pale straw yellow marked from the base upwards with numerous moderately stout streaks of crimson, which are more crowded on the sunny side, the upper part or crown not streaked; sometimes the whole of the exposed surface, crown and all, bathed in bright crimson. Flesh tender yellowish-white with a highly perfumed scent and flavour, suggestive of over-ripe strawberries, and becoming slightly mealy, but not dry, by the middle of September, when tasted by us. We are indebted to Mr. G. Bunyard, of Maidstone, for samples.

PEAR, Grand Soleil (Bull. d'Arb., 1884, 193 with tab.)—This is a Belgian variety raised by Major Esperen, and is described as being of the first quality. Fruit rather large, somewhat variable in shape, but usually obovate. Skin rough, bright green passing at maturity to golden yellow, streaked spotted and washed with red-brown, and sometimes slightly coloured on the side next the sun. Stalk large,

fleshy, brown, inserted level with the surface or in a narrow ribbed cavity. Eye occupying a deep narrow rounded basin. Flesh white moderately firm, melting, the juice briskly luscious and perfumed. Ripens in November and keeps till December or sometimes till January. Tree rather vigorous, moderately but constantly fertile. The fruit is sometimes of large size, and is then suitable for exhibition. It is highly recommended by M. Pynaert.

NEW VEGETABLES.

POTATOS.—The following varieties received 1st-class Certificates from the Committee of the International Potato Show at the Crystal Palace on Oct. 8.—*Chancellor* (Dean), a fine and handsome white kidney from King of Potatos and Woodstock Kidney; a late variety, a heavy cropper, and fine quality. *Harvester* (Dean), white round, from Beauty of Hebron and Woodstock Kidney; handsome, a great cropper, fine table quality, an excellent main crop variety. *London Hero* (Dean), a handsome pebble-shaped white round; handsome, fine quality, and an excellent cropper; R. Dean.—*Miss Fowler* (Ross), a very handsome white kidney of excellent quality; raised from Woodstock Kidney. *M. P.* (Ross), a round white variety, having the appearance of Climax; a heavy cropper, good keeper, and excellent quality; C. Ross.—*Ellingtonia*, coloured kidney, white, stained with purple; fine cropper and good quality, from American Purple and Royal Ashleaf; W. Ellington.—*Pride of Eydon*, white kidney, handsome, good cropper, very fine table quality; from Beauty of Hebron and Myatt's Ashleaf; J. Hughes.—*James Abbis*, a very handsome pale red kidney, raised by Mr. Robert Fenn; an excellent quality, but pedigree not stated; Sutton & Sons.—*Sukreeta*, a flat white round; excellent quality and a good cropper, raised by Mr. Holmes; Carter & Co.

NEW PUBLICATIONS.

The BOTANICAL MAGAZINE for October, contains: *Hæmanthus Katherinæ*, Baker [t. 6778], a fine Amaryllidaceous bulb, with elliptic oblong leaves, and cotemporary scarlet flowers in globose umbels lifted well above the leaves; Natal; Kew.—*Corylopsis himalayana*, Griff. [t. 6779], a hardy deciduous shrub or small tree of hazel-like character, with broadly ovate rugose leaves, and short dense pendulous racemes of small pale yellow primrose-scented flowers produced in the early spring; Indian mountains; Kew.—*Pyrus (Cydonia) Mauliei*, Masters [t. 6780], figured by us in our volume for 1875.—*Chrysanthemum cinerariaefolium*, Visiani [t. 6781], a slender-growing herbaceous perennial, with pinnato-pinnatifid leaves, and long-stalked heads of flowers, an inch and a half across, with spreading white ray florets and yellow disk; it "yields the Dalmatian insecticide powder now so universally used . . . which must not be confounded with the Caucasian insecticide Pyrethrum roseum"; Dalmatia; Kew.—*Streptocarpus Kirkii*, Hook. f. [t. 6782], an elegant little stove plant, with erect leafy-stems, four to six inches high, with opposite bluntly ovate-cordate leaves, and slender lax-flowered dichotomous cymes of small but pretty bright lilac tubulose-campanulate curved flowers; Tropical East Africa; Kew.

The REVUE HORTICOLE (Sep. 16—Oct. 16) contains figures of Peach *Belle de Saint-Geslin blanc*, a white-fleshed pale-skinned variety supposed to be a sport from Belle de Saint-Geslin, one of the latest of Peaches known, and whose good qualities are shared by its offspring.—*Clematis François Morel*, a variety which according to description belongs to the patens type, but has flowers of a violet red, with a bar on each sepal of bright velvety red. The figure, except as regards foliage, and of these none

from the leafy shoots is represented, is more suggestive of its being one of the Viticella group; it is, says M. André, a hybrid of the patens type, like Madame Grangé, which however we should not refer to the patens group at all.—*Ismene Andreana*, Baker, a handsome coloured figure, showing this to be a very distinct and ornamental Amaryllid; the perianth is white, the segments are lance-shaped and undulated, the corona jagged at the edge three and a-half inches across, distinctly marked with a green band opposite the sinuses from the top of each of which a white filament with its anther is projected inwards.

L'ILLUSTRATION HORTICOLE (9 liv.) has the following coloured figures:—*Vanda Sanderiana*, Rchb. f. [t. 532], a fine double plate of this splendid new Orchid, which comes from Mindanao, one of the Philippine Islands.—*Dahlia coccinea var. novæ* [t. 533], a group of three single Dahlias, which however show no indication of being related to *D. coccinea*, but evidently belong to *D. variabilis*.—*Tea Rose Princesse Julie d'Arenberg* [t. 534], a clear yellow variety, vigorous, free-flowering, the flowers large and full.

L'ORCHIDOPHILE (No. 41) has a photographic representation of *Burlingtonia fragrans*.

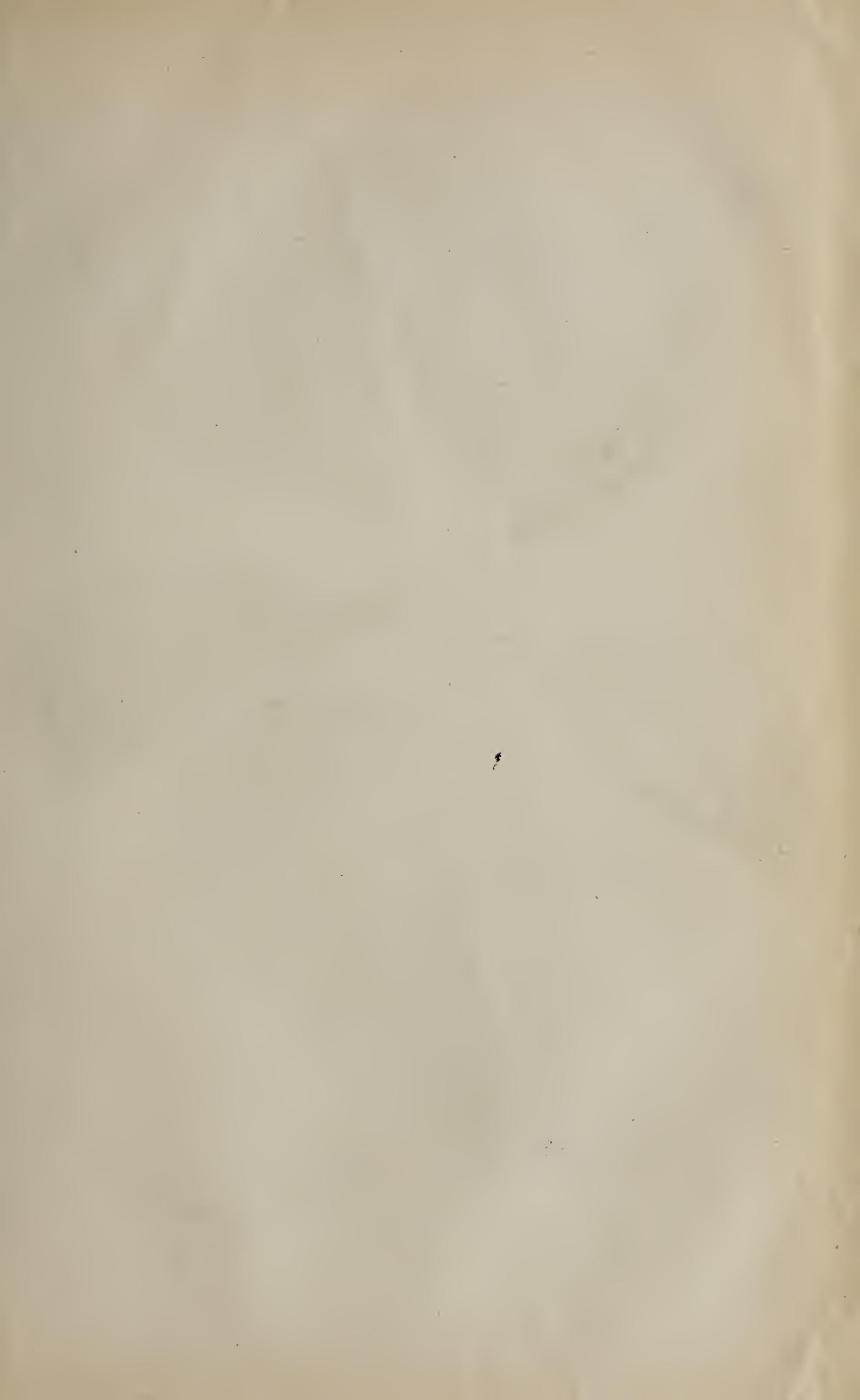
JOURNAL DES ROSES for October has a portrait of *H. P. Rose Madame Marsicault*, a beautifully formed expanded flower of full average size, and of a delicate blush colour, deeper towards the base of the petals; it won a 1st-class Certificate at the meeting of the Association Horticole Lyonnaise in June last.

LA BELGIQUE HORTICOLE (Mar.—April) figures *Vriesea fenestralis*, Morr. [t. 4—5], a handsome Bromeliad with beautifully chequered leaves, and yellow flowers; See p. 166.—*Ornithocephalus grandiflorus*, Lindl. [t. 6], a neat dwarf Brazilian Orchid, with drooping spikes of green and white odorous flowers.

REVUE DE L'HORTICULTURE BELGE, &c. (Oct.), contains a good figure of *Staphylea colchica*, Steud., a hardy shrub which has been found very useful for forcing to obtain early flowers. It has been also sent out under the false name of *Hooibrenckia formosissima*.

BULLETIN D'ARBORICULTURE, &c. (Sept.), figures the good-looking russetted Pear *Casteline*, of pyramidal-turbinate form, with a yellowish juicy flesh of excellent quality, and having a fine and special aroma; ripe in December and January, and may be kept till March. So says the *Pomone Tournaisienne*.

The GARDENERS' CHRONICLE (Sept. 30—Oct. 11) describes the following novelties:—*Gymnogramma Lathamiae*, Moore (p. 360), a fine new hybrid fern slightly silvery beneath, its supposed parents being *G. decomposita* and *G. schizophylla*; it has fronds upwards of two feet long, and is quadripinnate, with the ultimate divisions narrow linear; see p. 166.—*Adiantum Fergusoni*, Moore (p. 360), a curious and somewhat abnormal fern found in a greenhouse in Ceylon. It has triangular-ovate tripinnate fronds, having the pinnules various in form, but generally bluntly ovate, truncate at the base with a pair of deeply cut basal lobes, and smaller lobes above; sometimes the lobes are more numerous and the lobing irregular; sometimes the pinnae are distant, and sometimes so closely imbricated towards the apex that the parts have a semicristate character; sori oblong at the apices of the lobes. It has been supposed to belong to *A. tenerum*, but this cannot be as the pedicels are continuous, not articulated; we believe it is more nearly related to *A. Capillus-veneris*.—*Oncidium aurarium*, Rchb. f. (p. 394), a neat-looking species, with compressed pear-shaped pseudobulbs, ligulate acute leaves, and a panicle 4—5 feet high, with numerous zigzag twigs, bearing





W.H.Fitch del.

Apple Calville Rouge præcox.

stellate flowers, the sepals and petals fine yellow with brown spots, and the lip trifid, with a produced triangular middle lobe which is light yellow with a reddish brown basal disk over which are five light sulphur keels terminating in short ascending bristles; Bolivia; T. Christy, Esq.—*Calanthe dipteryx*, Rchb. f. (p. 394), a species near *C. pleiochroma*, with large racemes of apparently rich purple flowers with a callus of numerous small bodies of a deep purple which stand in three rows extending from the base to the very short isthmus; Sunda Islands; Veitch & Sons.—*Cattleya maxima aphlebia*, Rchb. f. (p. 394), a novel variety having flowers resembling *C. maxima*, but wanting the dark purple reticulate veins on the lip, where the yellow disk is surrounded by light purple; Ecuador; W. Bull.—*Odontoglossum rexillarium Lawrenceanum*, O'Brien (p. 396), a splendid variety of this fine Orchid, with flowers of perfect form and of a peculiar bright pink, the basal portion of the lip (disk) of the deepest blood red clearly and regularly set on a pure white ground, while the anterior part of the lip is of the same tint as the petals; Sir T. Lawrence.—*Phalaenopsis Reichenbachiana*, Hort. Sander (p. 396), a lovely plant and one easy of recognition. It seems to partake of the characteristics of both *P. speciosa* and *P. Lüddemanniana*. The flowers are equal in size to those of a good *P. Lüddemanniana*, the sepals and petals cream-coloured strongly marked with reddish-crimson blotches which are, as it were, rings enclosing spots of the same tint as the ground colour; the lip is rose-coloured with an orange base, woolly as in *P. tetraspis*; Sander & Co.—*Clerodendron illustre*, N. E. Brown (p. 424), a handsome stove species allied to *C. squamatum*, of erect habit, with petiolate cordate acute glabrous leaves distinctly repando-dentate on the edge; the flowers are produced in large terminal panicles, and are of a bright scarlet, with a tube nine lines long and a subregular limb eight or nine lines in diameter, the stamens exserted with vermillion filaments. We trust the introduction of this plant will again draw attention to the several fine species which used to be the glory of our summer shows; Celebes; Veitch & Sons.—*Piper ornatum*, N. E. Brown (p. 424), a pretty stove climber well adapted for covering trelliswork. The stems are terete, rooting at the nodes, the leaves directed to one side with peltate ovate orbicular blades of a bright shining green thickly covered with pinkish-white spots and dots, the older leaves darker and duller; native country not stated.—*Polypodium vulgare trichomanoides*, Hort. Backhouse (p. 435, fig. 79), a very beautiful variety of the common Polypody putting on the aspect of a much divided Davallia; it is very close to if really distinct from *P. v. cornubiense* Fowleri.

The GARTENFLORA (Sept.—Oct.) contains figures of *Fritillaria imperialis inodora purpurea*, Regel [t. 1165], one of a considerable number of bulbs sent to St. Petersburg by Dr. A. Regel, and which are stated not to have the disagreeable smell of the garden form which appears to have originated in Afghanistan. The flowers were yellowish or yellowish-red, or brownish-purple as in the variety figured in the plate above cited; “the upper leafless part of the stalk which bears the tuft of leaves above the flowers is considerably shorter than in the cultivated form; and in the purple variety the flowers at first stand upright. This form at present surpasses all the known forms in beauty.” With these advantages “this scentless form with its varieties, should quickly spread through our gardens”; Bokhara (Buchara); St. Petersburg Bot. Garden.—*Orthocarpus purpurascens*, Benth. [t. 1166], a dwarf branching annual herb, with something the aspect of a fumitory. It grows about six inches high; the leaves are cut into linear setaceous segments, and the pur-

plish flowers form a close ovate spike at the end of the shoots; California.—*Saxifraga aquatica*, Lapeyr. [t. 1167], a tall stout erect-growing species of Saxifrage, with thick palmately 3—5 parted leaves, the lobes trifid, and a long corymbiform raceme of white flowers; Pyrenees.—*Eremurus aurantiacus*, Baker [t. 1168a], a handsome hardy perennial growing a foot and a half high, with a long erect crowded spike of bright yellow starry flowers, with orange-red anthers. — *Eremurus aurantiacus*, Baker [t. 1168b], similar to the last, but with a less dense spike of paler yellow flowers with yellow anthers; both from Bokhara; St. Petersburgh Bot. Garden.—*Lilium superbum*, Lin. [t. 1169d], the typical form of this handsome N. American Lily.—*Allium Höltzeri*, Regel [t. 1169a], a slender growing species with fascicled oblong-cylindraceous bulbs, filiform semiterete leaves, and small umbels of little white flowers having rose-coloured anthers; Turkestan; St. Petersburgh Bot. Garden.—*Vriesia xiphostachys*, Hook. [t. 1170], a small growing Bromeliad, with tufts of subulate channelled leaves, and distichous spikes of long purple flowers; Brazil.

APPLE

CALVILLE ROUGE PRÉCOCE.

[PLATE 622.]

 MONGST highly coloured beautiful Apples—and there are many now in cultivation that are truly beautiful—there are but few that will bear comparison with Calville Rouge Précoce, the subject of our illustration. This is a variety of the origin of which we have no knowledge, beyond this, that it forms one of the collection grown for many years in the Royal Horticultural Society's Gardens at Chiswick. It was exhibited at the National Apple Congress, and much admired.

The *Fruits* are of medium size, round, with an even surface. *Skin* pale, deeply flushed and streaked with bright scarlet, and covered with prominent grey dots. *Eye* large, open, prominently placed. *Stalk* short, thick, set in a very even basin. *Flesh* firm, white, having at times a tinge of red, somewhat acid but extremely pleasant. In use during October and November.

The tree is free of growth, and bears freely. Is well worthy of cultivation in gardens for its ornamental appearance alone.—A. F. B.

BLUE FLOWERED ANNUALS.

 MATEUR gardeners are sometimes found inquiring for Blue Flowered Annuals. Here are a few that we think will please them:—*Nemophila atomaria atrocærulea*, a very distinct variety of a deep ultramarine blue, having a zone of black purple round the white eye. I find this to come

quite true from seed, and it makes a charming mass of blue; and being of close, compact growth, it does well for small beds. Then there is the old blue *Nemophila insignis*, with its large and striking pale blue flowers. Another is the old *Nigella damascena*, or Love-in-a-mist, really a fine blue flowered annual when well grown, opening deep blue, and changing to a pale blue, but very useful to cut from. The last of the quartette is *Whitlavia grandiflora*, a very fine deep blue annual, making a fine display when grown in a mass. Note should be made of these for another season's growth.

—R. DEAN.

HARDY PERENNIAL PHLOXES.

THIS is a very showy and ornamental class of plants, which has been very greatly improved of late years. They are much varied in their habits, colour, and general nature. Some are perennials, others are annuals. Of the latter there is nothing more showy and beautiful than large beds of *Phlox Drummondii* and its numerous varieties. The dwarf and branching perennial kinds are very useful for planting on rock-work. For planting in shrubberies and mixed borders the tall sorts are not excelled by any other class of plants. They like a light rich soil and an open situation. They are propagated freely by division, and by cuttings of the young shoots. The strong-growing tall kinds should be lifted every two years and divided, otherwise they will grow into large stools with numerous small and comparatively weak shoots. They are most useful plants for furnishing large quantities of flowers during the autumn.

They also do well when grown in pots. They should be kept in a cool house or pit, and syringed occasionally to keep them clean. They should have an abundance of air, and if kept in pits, the lights should be taken off at night. They will flower some time before plants in the open border, and can be turned to good account in a variety of ways.—M. SAUL, York.

— **F**OR BLANCHING ARTICHOKEs the *Jardinier Suisse* recommends that when the heads are well formed they should be enveloped in soft paper, and then covered with a bag of thick paper tied at the base. By this means after about a month tender savory yellow heads, offering more eatable substance than those produced in the usual way, will be obtained. This practice, observes M. Teran, is not new. It is perhaps questionable if Artichokes are worth so much trouble.

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| <i>grandis</i> | 1848 | 13 | 289 | <i>Iresine Lindeni</i> | 1868 | 286 | 169 |
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• (To be continued.)

LATE AUTUMN GRAPES.

WE find *Gros Maroc* and *Alnwick Seedling* two very useful varieties of Grapes to grow for late autumn and early winter use; more especially the former variety, which if it does as well when more generally grown as it does with ourselves and one or two other gardeners we know, it will, we feel sure, be largely planted. The varieties in question are growing side by side at the coldest end of a viney where late *Muscats* are grown, the only other vine being *Gros Colman*. We give our *Muscats* a night temperature of about 70° when in bloom, as we find in our moist cool soil that they then

set more satisfactorily than in a cooler temperature. On dull days we endeavour to get the temperature up to 80°, with an increase of 10° by sun heat. The *Gros Maroc* and *Alnwick Seedling* have set as well as *Hamburgs* usually do.

Alnwick Seedling is not so ripe as *Gros Maroc*; it will take fully another three weeks before it is fit to eat, though coloured as black as sloes. *Gros Maroc* has the advantage in this respect. In the same house *Gros Colman* is a month from being ripe. Its long period of ripening is, in my opinion, a great drawback to this otherwise noble-looking grape. I dare-say in light warm soils it may ripen quicker; in fact, a neighbour of ours, who grows grapes for market rather largely, has a number of vines of *Gros Colman* in his long span-roofed viney, and from these he gets enormous crops of fine grapes, the soil in which they are planted being an alluvial sandy loam.—H. J. C., Grimston.

GARDEN GOSSIP.

— DR. HOGG'S FRUIT MANUAL, of which a fifth edition has just been published, is quite indispensable to every garden library. Some twenty-four years ago when it first appeared it was a modest little handbook, nine years since it developed into an octavo volume, and now in the fifth edition it becomes a bulky volume of more than 750 pages. This rapid increase of size shows that pomology is making progress amongst us notwithstanding uncongenial seasons, and that the author has been busy working up the materials which time has brought into his hands. Of its merits we need only say it is well done; and since it records mainly what experience teaches as to the behaviour of fruits in this country, it is on that account exactly fitted to be consulted by our home fruit-growers, whether amateur or professional. The descriptions of Apples occupy more than 250 pages, those of Pears 210 pages. Some twenty-eight pages are devoted to an elaboration of Dr. Hogg's Classification of Apples, which has been amended, and of which the author observes after fuller experience that he is convinced the principles upon which it is founded are sound. The various other cultivated fruits, including grapes and pine-apples, are passed under review, on the same plan as the apples and pears, so that it becomes a complete and fully trustworthy book of reference for all garden fruits. That Dr. Hogg's labours as a pomologist have been appreciated we need only recall the fact that at the recent Pomological Congress at Rouen he was presented with a gold medal.

— THE ANNUAL INTERNATIONAL POTATO EXHIBITION held in association with the great Hardy Fruit Show at the Crystal Palace on October 10 and two following days was perhaps not quite so extensive as on some former occasions, but the inferior elements were more generally eliminated, so that the average quality was superior. Indeed, there can be little doubt but that those who saw an International Potato Show for the first time were amazed at the beauty set forth and delighted with the varied hues and forms displayed. The show was held beneath the lofty centre transept, and attracted a considerable gathering of the horticultural

fraternity. We may record, as an interesting fact that for the first time in the history of the shows one exhibitor swept off the 1st prizes in all the chief classes—Mr. Hughes, gardener to Colonel Cartwright, Eydon Hall, Byfield, Notts, having taken, not only the 1st prizes in the classes for twenty-four, eighteen, twelve, and nine kinds, but being also 1st in one or two smaller ones, and 2nd in the six kinds. Mr. Hughes' exhibits were all first-class, and as he showed some seven or eight dozen dishes, his success marks him out as the champion grower of the year.

— **T**HIS DICTIONARY OF GARDENING, published at the *Bazaar* Office, keeps up its character as the most complete and useful of the publications of its particular class. The information is very varied, embracing the whole round of gardening matters, and it is quite as full as can be expected in a publication of this popular character. Its alphabetical mode of arrangement makes it very easy to consult. The illustrations are numerous and for the most part useful, but a little too uneven as to scale.

— **I**vy LAWNS, says the *Farmer's Gazette*, are known to but few among the many who are interested in gardening economy. They consist, as the name implies, of ivy only, and they offer some peculiar advantages in cases where grass lawns are apt to occasion more trouble than they are worth. An ivy lawn may be well made in one season, and if the primary operation of planting be properly performed the lawn will make itself; it will want no cutting, no sweeping, no watering, no protection from the birds that eat the grass seeds to-day and to-morrow scratch up the tender plants, as though it was their mission to make grass lawns impossible. And when made, being, as it were, self-made, an ivy lawn will take care of itself for any number of years; but if in need of repair or trimming, the knife, the shears, or the spade may be used with unskillful hands, and with the least imaginable cost of time, for it is not an easy thing to kill, or even to seriously injure, a lawn consisting of ivy solely. Such lawns are unfit for games, and indeed should not be trodden on. They will not, therefore, supersede grass.

— **T**HIS National Rose Society has just issued a second and revised edition of its Descriptive Catalogue of EXHIBITION ROSES, to which is appended a Catalogue of Garden Roses. The list is a tabulated one, and gives the name, date, raiser's name, form, colour, habit, and remarks on each admitted sort; and when any two or more sorts are considered identical, or nearly so, their names are bracketed together.

— **N**o doubt the ALTHAEA FRUTEX (*Hibiscus syriacus*) is one of the finest of hardy deciduous autumn blooming shrubs, though it is sadly neglected, as are many other of our best garden plants, which just now are elbowed out by cut flowers and dinner-table decorations. We have often admired these plants in Mr. Waterer's Knap Hill Nursery, where they have been blooming finely during the present season. One of the finest is Celeste, figured a few years back in our pages, a lovely variety, with blue petals, marked with a crimson blotch at the base, running out into radiating streaks of the same colour; it is a charming flower. Amaranth is similar to it, but the flowers are of a pale lilac colour. Totus albus again is a flower of great beauty, being, as the name implies, pure white. These are all single. Amongst the doubles Duchess of Brabant has the white petals striped with reddish-

lilac; and Alba plena has very full white flowers, in which the petals have a magenta blotch at the base.

— **T**HIS PINCHING OF PEAS is recommended in the *Lyon-Horticole*. It consists of pinching or clipping them as soon as they begin to bloom. This operation gives the shells a larger development and causes ramifications to be borne at the axils of the leaves, which does not take place when this operation is not performed. The first crop is hardly taken off when other pods, promoted by the clipping, succeed from the flowers borne on the secondary branches. A second pinching will sometimes produce a third crop. This procedure is recommended by M. Delhomme, gardener at Autun.

— **T**HIS interesting GALTONIA CLAVATA has been flowering and attracting attention at Kew. It is not indeed to be compared with the stately *G. candicans*, but still it is as interesting, and even more curiously beautiful. The flowers instead of being straight, pendulous, and pure white, are somewhat curved, and beautifully marked along the middle of each segment with three green lines. These plants differ from *Hyacinthus*, under which they are often classed, by the numerous flattened seeds, whereas in *Hyacinthus* they are few and globose.

— **A**t the recent meeting of the British Association, the case of UTRICULARIA AS A FISH TRAP was the subject of a paper by Professor Moseley. The common *Utricularia vulgaris*, which grows in ditches and stagnant pools, bears a number of small bladders, the size of a pea, which act as traps, in which very small fishes are caught and killed. The bladder has an opening secured by an elastic door, which yields to the pressure of the fish, and immediately rebounds with force. If the fish are very small they get completely inside, but generally they are caught either by the tail or the head, being held till dead.

— **T**HIS FORCING of the MOUTAN PÆONY is thus described by a writer in the *Field*:—"This paeony is very easily brought into flower at any time from December onwards. A very little artificial heat suffices to expand its flowers. We have a good stock of plants, which are grown in the reserve garden, from which we draw three or four plants every year for forcing. A rather large stock is required to keep up the supply, because it suffers more than any other plant from early forcing, as it takes three or four years to recover after being forced. This is the more surprising seeing how readily it responds to artificial heat, as in a temperature of 45 by night and 60 by day it will come into flower in three weeks in the depth of winter. But, notwithstanding this, it is only the flower buds that are excited; the wood buds remain dormant, and frequently refuse to grow afterwards, which is much to be regretted, for, if it was as amenable to this kind of work as some other plants, it would be most valuable. When large plants can be had they are very noble in aspect, and have a very effective appearance in the conservatory. The single varieties are very pretty, but the double ones are the most showy. We allow our plants to remain in the pots in which they flowered, under some sort of protection, until the month of May, when they are planted out again in their old quarters. Small plants are of no use for early flowering, as they only produce two or three flowers. Our largest are probably more than a quarter of a century old, from which we get from eighteen to twenty flowers open at one time. We have some half dozen varieties, but, except that some of them are single flowers and of a slightly different shade in colour, there is much sameness about them."



W. H. Fitch, del.

Gideon & Stroobant, Chel.

Dendrobium crispum Veitchianum.

ODONTOGLOSSUM CRISPUM VEITCHIANUM.

[PLATE 623.]

OUR plate represents one of the most remarkable and beautiful forms of *Odontoglossum crispum* (*Alexandriæ*) which have yet become known to us. It is analogous in some sense to the highly coloured *O. Pescatorei Veitchianum*, flowered a year or two since by Messrs. Veitch, and which is by far the most beautifully marked form of *O. Pescatorei* yet seen. These two plants, which are both exceedingly rare, form a pair of floral objects of surpassing loveliness. The plant we now figure was imported by Messrs. Veitch & Sons, and was exhibited by them at the Regent's Park Show in June last, when it was certificated, under the name of *O. crispum mirabile*. Shortly thereafter it found its way into the *recherché* collection of Baron Schröder, at Staines, by whose desire it was re-named *Veitchianum*. Thus the Messrs. Veitch have dedicated to them two of the handsomest forms of the two most popular of the Odontoglossums.

The variety, as will be seen, is one of those

bearing large-sized flowers, with the broad sepals and petals wavy and toothed at the edge; the lip is also broad and well displayed. The great beauty of the plant, however, lies in the colouring, which is peculiar, the border being pure white, within which comes a zone of purplish-rose surrounding a white field which is heavily blotched with brownish crimson, a large irregular patch usually occupying the centre, and a few smaller spots equally irregular being distributed around it. The lip has the usual yellow disk, with a few crimson spots and marginal pencillings, the rest of the surface being white. The colours are so strongly marked that they are seen through the texture of the flowers, consequently both sides of the inflorescence show the ornamental character of the plant.

This beautiful species, named by Mr. Bateman in honour of the Princess of Wales, is now known to be the same as Dr. Lindley's much earlier *O. crispum*, which name consequently claims precedence.—M.

MR. SANDERSON'S CHRYSANTHEMUMS.

NOT long since I paid a visit to the worthy President of the National Chrysanthemum Society, Mr. E. Sanderson, at his residence at Harlesden Park, Willesden, just when his flowers were in the full flush of their beauty; and how fine they were is shown by his having been first with 24 blooms, second with 18, and first with 12 incurved varieties at the recent Exhibition at the Royal Aquarium, and that notwithstanding the blooms were a week or ten days past their best. There could be seen at Willesden some 160 plants, comprising about 50 of the best varieties, all with upright stems, crowded into a house about 22 feet by 10 feet, and yet admitting of a passage round the house. They were superbly grown and flowered, and all by Mr. Sanderson's own hand, for he is an amateur in the strictest sense of the word. He takes his cuttings in November, strikes and winters them in his house, which can be warmed by means of a flue, pots them on in spring, keeping them in a cold frame, and places them out of doors in

the summer, until it is time to house them in October.

Mr. Sanderson grows nothing but incurved varieties, and I never before saw such Prince Alfreds, so full, finely coloured, and exquisitely symmetrical. Empress of India, Barbara, John Salter, Hero of Stoke Newington, Jeanne d'Arc, Jardin des Plants, Lord Alcester, Lord Wolseley, Mr. Bunn, Mr. Corbay, Mr. Heale, Prince of Wales, Princess of Wales, and many others too numerous to mention, were of the finest development. For nearly half a century Mr. Sanderson has grown and exhibited his favourite flower. Almost from the first he was connected with the Old Stoke Newington Chrysanthemum Society, which subsequently became the Borough of Hackney Society, and eventually, though only recently, the National Chrysanthemum Society. It was at one of its earliest meetings he won his first honours, and for some 40 years he has been Committeeman, Secretary, Chairman, and President in turn; but never a better President or a more successful exhibitor than now, when he is reaching

on to his 70th year. That he may continue the President of the National Society for years to come is the heartfelt wish of the great body of its members, and especially of its Executive.—R. DEAN.

EUCHARIS AMAZONICA.

HIIS is a plant of easy cultivation; one which will bear almost any kind of treatment which does not descend to the limits of starvation temperature. We treat the Eucharis as an evergreen bulb, always supplying it with plenty of weak manure-water when in vigorous growth, and never altogether withholding it at those times when at comparative rest. Flowers may be gathered during every month of the year; but there appears to be about four acknowledged periods, when the whole batch having had precisely the same treatment will send up enormous quantities of bloom. It is not particular as to soil. When repotting we use turfey loam, leaf mould, and sand, in well drained pots or tubs.

We have had good success with Eucharis when in 8 in., 10 in., and 12 in. pots plunged in leaves in a bed, shaded by a plant of Bougainvillea. The enormous quantities of the mauve inflorescence of this plant above, contrasting with the profusion of the delicate white blooms of the Eucharis underneath, produced a most charming effect, and one not to be forgotten by those who were fortunate enough to see them in flower under the happy circumstances above described. In this position they remained a year or two, when they became pot-bound and gave flowers less freely. We then gave them a liberal shift, using pots of 12 in., 15 in., 18 in., and 20 in., and paraffin tubs of 24 in. Under the new arrangement of potting, tubbing, &c., they required very much more room, and we had to give up a whole house to them. When we had finished there happened to pass by one of those "wise men from the East"—for there are plenty of them even in these days, and they come from all points of the compass—who, according to their own estimation of themselves, know everything, reminding us very much of the man in Butler's *Hudibras*:

"Who could distinguish, and divide
A hair, 'twixt South and South-west side."

This wise man told us we had shifted them at the wrong time. What a pity, we thought, he had not called before we commenced shifting if all our future success was to be blighted through this ill-timed act. They were, however, shifted and comfortably put in place; and we reasoned humbly something after this fashion—better to shift at the wrong time than not to shift at all. We had not long to wait for pleasant results, the plants soon put forth fresh leaves, fresh bulbs soon formed, and these in turn followed by a most liberal supply of flowers, this time filling the whole house, presenting such a picture as may not be met with in every day's walk. The plants are again throwing up flowers plentifully, and we calculate that about Christmas-time we shall have another fine house of Eucharis in full bloom.—WILLIAM MILLER, *Combe Abbey Gardens*, November 7th, 1884.

PICOTEE MASTER NICHOLS.

IBEG to dissent from Mr. Dodwell's remarks at page 181 as to the respective merits of the above-named variety and Mary.

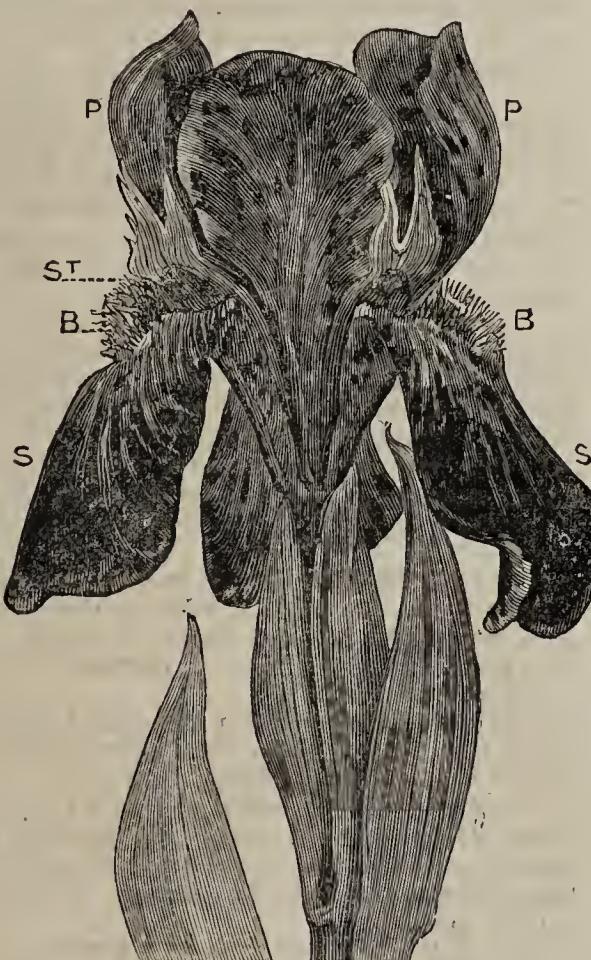
While admitting that no collection is complete without the latter, I still hold the opinion, which is shared by many others, that the late Mr. George Rudd was quite correct in his description of Master Nichols, as "fairly surpassing Mary." For the last two or three seasons I have seen the two varieties bloomed side by side, and the result was always in favour of Master Nichols. Mr. Dodwell evidently overlooks the fact that when the two varieties met in competition at the Manchester Show of 1881, in the light-edged class, Master Nichols obtained much higher honours than Mary. I trust that you may be able to find space for this note.—A YORKSHIRE AMATEUR.

THE BEARDED IRISES.

IN the hardy herbaceous varieties of the group of Bearded Irises we have a series of bed or border flowers, possessing not only great beauty but also great variety. Some of them indeed almost rival the Orchids in the delicacy of their tints and markings. The annexed descriptive list we owe to Messrs. Barr & Son. It includes the varieties of *Iris aphylla*, *amœna*, *neglecta*, *pallida*, *squalens*, and *variegata*, which bloomed in their grounds

at Tooting in May and June last. The varieties of *Iris germanica* are not included, as they flowered earlier, and were so much crippled by the spring frosts (as they often are), as not to appear in their true characters. Those species on the other hand, which are here included, being later in exposing their flower buds, are rarely if ever injured.

The little figure is added to make the description more easily understood : s representing the sepals or sepaline segments of the perianth, with the bearded band (B) towards their base, these being referred to as the "falls"; p represents the petals or petaline segments, which alternate with the sepaline, and are here described as the "standards"; while st shows the petaloid stigmas, which in the flowers will be found to stand just behind and opposite to the falls.



IRIS AMŒNA.—Falls purple-crimson with faint white edge, beard primrose, the claw on each side reticulated with white; standards white; petaloid stigmas white tinged with lilac.

ALICE BARR: falls flushed with silvery lilac and netted with white, with a white bar running from beard to apex, beard orange; standards white tinged with lavender; petaloid stigmas light lavender.

ALVAREZ: falls rich velvety-crimson, beard yellow, the claw on each side prettily netted with crimson and white; standards white tinged with

lavender, base pencilled with purple; petaloid stigmas white tinged with lavender.

ARIADNE: falls purple-crimson reticulated with white, beard yellow; standards white, base veined with purple; petaloid stigmas white tinged with primrose.

ASPASIA: falls rich velvety-crimson edged with white, beard yellow, claw on each side prettily netted with white and crimson; standards white splashed with purple, base pencilled with brown; petaloid stigmas light lavender.

CALYPSO: falls white tinged and reticulated with purple, beard yellow; standards white tinged with lilac.

COMTE DE ST. CLAIR: falls violet-purple edged with white, beard primrose, the claw on each side reticulated with purple and white; standards and petaloid stigmas white tinged with lavender.

DONNA MARIA: falls white tinged with rose, beard primrose, the claw on each side veined with purple; standards white; petaloid stigmas white tinged with lilac.

DUCHESS OF NEMOURS: falls rich purple-crimson reticulated with white, beard yellow; standards and petaloid stigmas white.

DUKE OF NEMOURS: falls rose-purple suffused with white, beard yellow, the claw on each side reticulated with white and purple; standards and petaloid stigmas white tinged with lavender.

GLORIETTA: falls rich velvety-crimson with clear white netting, beard primrose; standards white pencilled with purple at base; petaloid stigmas white tinged with lavender.

JULIETTE: falls violet-purple tinged with white, beard primrose, the claw on each side reticulated with white; standards white slightly tinged with lilac.

MORPHEUS: falls purple velvety-crimson reticulated with clear white, beard pale primrose; standards and petaloid stigmas white tinged with lavender.

PENELOPE: falls reticulated with white and lilac, beard yellow; standards white indistinctly veined with lilac, base spotted with purple; petaloid stigmas white.

POITEAU: falls very rich purple-crimson, beard yellow, the claw on each side reticulated with white; standards white flushed with lavender and spotted with brown at base; petaloid stigmas white tinged with rose.

RETICULATA ALBA: falls violet-purple edged and reticulated with white, beard yellow; standards white, base spotted with purple; petaloid stigmas white tinged with lilac.

SIR GARNET WOLSELEY: falls purple shaded with crimson and netted with white, beard tinged with primrose; standards white feathered with purple, base spotted with purple; petaloid stigmas pale lavender.

UNIQUE: falls light purple edged and reticulated with white, beard yellow; standards and petaloid stigmas white tinged with lavender.

VICTORINE: falls royal blue, beard primrose, the claw on each side reticulated white and purple; standards white flaked blue, base striped purple; petaloid stigmas white.

IRIS APHYLLA.—Falls white margined with purple, beard white, the claw on each side netted with purple; standards white margined and spotted with purple, and with a purple bar down the centre; petaloid stigmas purple.

BEATRICE: falls white, beard white tinged with primrose, the claw on each side veined with lilac; standards white margined with light lavender; petaloid stigmas blue shading to lilac.

BRIDESMAID: falls clear white prettily margined with light purple, beard white, the claw on each side veined with purple; standards white suffused with lilac, base spotted with purple; petaloid stigmas white flushed with lilac.

GAZELLE: falls clear white heavily margined with violet, beard white tipped with orange, the claw on each side netted with purple; standards and petaloid stigmas red-violet suffused with white.

J. B. M. CAMM: falls rose-purple tinged with white, beard orange, the claw on each side reticulated with brown; standards lavender flushed with rose, base pencilled with crimson on yellow ground; petaloid stigmas primrose barred with lavender.

MADAME CHEREAU: falls white margined with blue, beard white tinged with primrose; standards white elegantly margined with blue; petaloid stigmas lavender.

SWERTII: falls clear white slightly margined with violet, beard slightly tipped with orange, the claw on each side prettily veined with violet; standards clear white margined with violet; petaloid stigmas barred with violet and shaded with lilac.

IRIS FLAVESCENS.—Falls sulphur white, beard primrose, the claw on each side netted crimson and yellow; standards and petaloid stigmas primrose.

MR. BAXTER: falls sulphur white, beard orange, the claw on each side prettily netted with crimson and yellow; standards and petaloid stigmas full rich yellow.

MUNITE: falls flushed with purple reticulated with white and edged with yellow, beard orange; standards and petaloid stigmas yellow with a bronze flush.

IRIS NEGLECTA.—Falls purple crimson, beard orange yellow, the claw on each side reticulated white and purple; standards lavender; petaloid stigmas light lavender.

ALICE: falls purple, beard primrose, the claw on each side reticulated white and purple; standards lavender; petaloid stigmas white barred with lavender.

ALONZO: falls violet purple reticulated with white, beard yellow; standards and petaloid stigmas lavender.

AMABILIS: falls purple crimson, beard primrose, the claw on each side reticulated white and purple; standards lilac flushed with white and spotted with brown at base; petaloid stigmas white barred with lilac.

ATROPA: falls dark crimson purple, beard primrose, the claw on each side reticulated white and purple; standards purple, base spotted with darker purple; petaloid stigmas white tinged with lavender.

AUGUSTINE: falls purple, beard primrose, the claw on each side netted white and purple; standards and petaloid stigmas red-lavender.

BOCAGE: falls red-purple veined and reticulated with white and purple, beard primrose; standards lavender, base spotted purple; petaloid stigmas white tinged with lilac.

CHAMELEON: falls rich violet, beard orange, the claw on each side reticulated purple and white; standards blue, base spotted with purple; petaloid stigmas blue shading to white.

CLARA: falls rich violet reticulated with white, beard primrose; standards and petaloid stigmas lavender.

CLARISSIMA: falls crimson-purple veined and reticulated white, beard primrose; standards

red lavender; petaloid stigmas white tinged with lavender.

CORDELIA: falls rich velvety crimson, beard full yellow, the claw on each side veined white; standards lavender, base striped purple; petaloid stigmas lavender.

CY THEREA: falls violet-purple, beard yellow, the claw on each side reticulated white; standards violet; petaloid stigmas lavender.

DU BOIS DE MILAN: falls rich velvety crimson, beard yellow, the claw on each side reticulated purple-white; standards white flushed lavender; petaloid stigmas lavender.

DUCHESS OF ARGYLE: falls rich velvety purple, beard yellow, the claw on each side reticulated purple and white; standards lavender flaked purple; petaloid stigmas light lavender.

DUKE OF CAMBRIDGE: falls purple shaded with crimson, netted with white, beard yellow; standards lavender flaked and feathered with purple-crimson, base spotted purple; petaloid stigmas white tinged with lavender.

EDINA: falls violet tinged with white on margin, beard primrose, the claw on each side white with purple netting; standards lavender, base veined purple; petaloid stigmas lavender.

FAIRY QUEEN: falls purple-crimson striped and reticulated with white, beard yellow; standards lavender flaked and feathered purple-crimson; petaloid stigmas white tinged with lavender.

FANTASIA: falls purple with narrow white margin, beard primrose, the claw on each side netted white; standards and petaloid stigmas lavender.

FLORENCE BARR: falls light purple, beard primrose, the claw on each side netted white and lilac; standards and petaloid stigmas lavender.

HANNIBAL: falls purple-crimson, beard primrose, the claw on each side reticulated with white; standards and petaloid stigmas lavender.

HARLEQUIN MILANAIS: falls rich purple velvety-crimson, beard yellow, the claw on each side reticulated with white; standards lavender shading to white and spotted with purple; petaloid stigmas white tinged with lilac.

IRMA: falls purple-crimson netted with white, beard primrose; standards light lavender, base striped purple; petaloid stigmas lavender shading to white.

KITTY KINGSBURY: falls rich purple-crimson, beard yellow, the claw on each side reticulated white and purple; standards lavender, base spotted purple; petaloid stigmas white tinged with lavender.

LAVATER: falls violet-crimson reticulated with white, beard yellow; standards lavender, base spotted brown; petaloid stigmas white.

LORD NAPIER: falls crimson shaded with purple, beard yellow, claw on each side reticulated white and purple; standards full lavender-lilac, base striped purple; petaloid stigmas lavender shading to white.

MARIAN: falls reticulated with rich purple and white, beard orange; standards red-lavender; petaloid stigmas white barred with lilac.

NATIONALE: falls royal blue, beard yellow, the claw on each side netted white; standards full violet-blue, base striped white; petaloid stigmas lavender shading to white.

PRINCE TECK: falls red-purple reticulated white, beard yellow; standards and petaloid stigmas pale lavender.

ROLANDIANA: falls purple shaded with crimson, beard primrose, the claw on each side reticulated white and purple; standards purple, base spotted brown; petaloid stigmas light lavender barred with dark lavender.

SULTAN: falls rich velvety purple-crimson, beard

- primrose, the claw on each side netted white; standards and petaloid stigmas lavender.
- SULTANA**: falls very rich purple-crimson, beard primrose, the claw on each side reticulated purple and white; standards and petaloid stigmas lavender.
- SYLVIA**: falls white edged and reticulated with purple, beard yellow; standards and petaloid stigmas light lavender.
- TERESETA**: falls rich purple shaded with crimson, beard primrose, the claw on each side netted white; standards lavender shading inwards to white, base striped purple; petaloid stigmas pale lavender.
- VIRGINIE**: falls royal blue, beard full yellow, the claw on each side netted white; standards lavender-blue, base striped purple; petaloid stigmas white tinged with lavender.
- WAGNER**: falls rich purple-crimson, edged with lavender, beard primrose, the claw on each side reticulated white; standards and petaloid stigmas lavender.
- WILLIE BARR**: falls purple reticulated and edged with white, beard yellow; standards and petaloid stigmas white tinged with lavender.
- IRIS PALLIDA**.—Falls purple shading to lavender, beard white tipped with primrose; standards and petaloid stigmas lavender-blue; large flower.
- CÉLESTE**: falls sky-blue, beard tinged primrose, the claw on each side white with lavender reticulation; standards sky-blue; petaloid stigmas white tinged with lavender-blue.
- DALMATICA**: falls delicate lavender blue, beard tinged primrose, the claw on each side white striped purple; standards and petaloid stigmas delicate lavender-blue.
- DELICATA**: falls silvery-lilac flushed with white, beard white tipped primrose, claw on each side reticulated white and purple; standards and petaloid stigmas lavender.
- DR. MATHEWS**: falls red-lavender, beard white tipped primrose, the claw on each side flushed white and prettily veined with crimson-brown; standards lavender-blue; petaloid stigmas white flushed with lavender.
- DUKE OF YORK**: falls ruby-purple, beard orange, the claw on each side reticulated white; standards purple, the base lavender; petaloid stigmas lavender barred with blue.
- GARIBALDI**: falls rosy-purple, beard tinged primrose, the claw on each side reticulated white and purple; standards rosy-purple; petaloid stigmas lavender barred with violet.
- GRAND DUC**: falls rich crimson-purple, beard yellow, the claw on each side reticulated white; standards red-lilac; petaloid stigmas white barred with lilac.
- KHEDIVE**: falls purple-lilac, beard orange-yellow, the claw on each side white with purple reticulation; standards lilac, base spotted with brown; petaloid stigmas lavender shading to white.
- LILACINA**: falls rich full lilac, beard tinged primrose, the claw on each side reticulated white and purple; standards and petaloid stigmas lavender.
- MADAME PACQUETTE**: falls claret-purple, beard primrose, the claw on each side reticulated white and purple; standards ruby-purple; petaloid stigmas white barred with purple.
- MAERSART**: falls rich claret-purple, beard primrose, the claw on each side reticulated white and purple; standards light purple, base striped brown; petaloid stigmas purple shading to white.
- MANDRALISCE**: falls purple-lavender, beard white-tinged primrose, the claw on each side spotted purple; standards purple-lavender;
- petaloid stigmas shading from light to dark mauve.
- QUEEN OF MAY**: falls rosy-purple, beard full yellow, the claw on each side netted white and purple; standards rosy purple; petaloid stigmas white barred with lavender.
- RUBELLA**: falls vinous purple, beard tinged primrose, the claw on each side reticulated white and purple; standards purple; petaloid stigmas purple shading to lavender.
- VARIABILIS**: falls purple, beard primrose, the claw on each side netted white; standards lavender-purple; petaloid stigmas lavender shading to white.
- WALNER**: falls purple, beard white tinged primrose, the claw on each side reticulated white; standards and petaloid stigmas red-lavender.
- IRIS SQUALENS**.—Falls purple-crimson, beard primrose, the claw on each side reticulated white and brown; standards and petaloid stigmas bronze flushed.
- ABDUL AZIZ**: falls velvety purple-crimson, beard full yellow, the claw on each side reticulated white and purple shaded cinnamon; standards lavender bronze shading to primrose; petaloid stigmas sulphur.
- A. F. BARRON**: falls velvety maroon crimson, reticulated and mottled white and yellow, beard yellow; standards glittering brown-bronze, base spotted crimson; petaloid stigmas sulphur barred with lilac.
- AFGHAN PRINCE**: falls rich velvety maroon crimson veined white and mottled yellow, beard yellow; standards rich chestnut bronze, base spotted brown; petaloid stigmas yellow barred with lilac.
- ARNOLD**: falls very rich velvety crimson, beard full yellow; standards and petaloid stigmas fine purple bronze.
- BOSSUET**: falls rich crimson reticulated white, beard full yellow; standards and petaloid stigmas sulphur flushed with bronze.
- BRITANNIA**: falls rich velvety-purple, beard primrose, the claw on each side reticulated white and purple; standards and petaloid stigmas creamy white with a bronze flush.
- BRONZE BEAUTY**: falls pale purple, beard yellow, the claw on each side reticulated white and rich purple; standards bronze; petaloid stigmas primrose flushed with bronze.
- CERBÈRE**: falls purple, beard primrose, the claw on each side reticulated white; standards and petaloid stigmas primrose flushed with bronze.
- DR. BERNICE**: falls rich velvety-crimson, beard yellow; standards and petaloid stigmas rich brown bronze.
- EXQUISITE**: falls purple shading to lavender, beard orange yellow, the claw on each side reticulated white and purple; standards and petaloid stigmas sulphur flushed with bronze.
- FÉNELON**: falls maroon-crimson, beard full yellow, the claw on each side yellow, white and crimson; standards sulphur bronze and lilac, base spotted brown; petaloid stigmas yellow.
- FULGORA**: falls red brown reticulated white, beard orange; standards and petaloid stigmas coppery bronze.
- GEORGE H. BARR**: falls rich velvety purple-crimson reticulated white and yellow; standards chestnut bronze flaked yellow and white; petaloid stigmas yellow.
- HARRISON WEIR**: falls rich purple-crimson, beard yellow, the claw on each side reticulated white; standards brown sulphur bronze, base spotted with crimson; petaloid stigmas sulphur shaded with lilac.

HÉRICART DE THURY: falls crimson brown reticulated white, beard yellow; standards sulphur bronze tinged lilac, base spotted brown; petaloid stigmas primrose.

HÉRODOTE: falls purple shaded crimson with yellow and brown reticulation, beard yellow; standards lilac bronze shading to sulphur spotted and flaked purple; petaloid stigmas sulphur.

HUGH BLOCK: falls reticulated white and crimson, shaded purple, beard primrose, the claw on each side reticulated white and brown; standards fawn flushed with bronze; petaloid stigmas primrose.

JACQUINIANA: falls rich velvety crimson, beard full yellow, the claw on each side mottled yellow and white; standards red bronze, base spotted brown; petaloid stigmas primrose barred with lilac.

JUDITH: falls purple crimson, reticulated and edged white, beard primrose; standards fawn tinged bronze, base spotted purple; petaloid stigmas lilac shading to primrose.

LADY JANE: falls purple shaded maroon with white reticulation, beard yellow; standards red bronze; petaloid stigmas primrose, barred.

LADY SEYMOUR: falls flushed purple, edged white, with purple and white reticulation, beard primrose; standards pale bronze lavender; petaloid stigmas creamy white.

LADY STANHOPE: falls crimson edged yellow, netted white, beard yellow; standards and petaloid stigmas sulphur flushed with bronze.

LA PRESTESSE: falls rich velvety crimson shaded purple, veined white and yellow, beard orange yellow; standards glittering bronze, base veined brown; petaloid stigmas fawn barred with lilac.

LATIFOLIA: falls purple reticulated white, beard primrose; standards bronze lilac.

LAVANDULACEA: falls lavender, beard primrose, the claw on each side reticulated white and brown; standards pale bronze lavender, base spotted brown; petaloid stigmas creamy white.

LORD GREY: falls coppery bronze, beard orange-yellow, the claw on each side mottled white and brown; standards brown bronze, base spotted with brown; petaloid stigmas shading to fawn.

MARCHIONESS OF LORNE: falls rich crimson, shaded with maroon, reticulated and mottled with yellow and white, beard yellow; standards rich glittering reddish coppery bronze, base mottled yellow and brown; petaloid stigmas yellow barred with lilac.

MARIA THERESA: falls purple, beard yellow, the claw on each side reticulated white, yellow and purple; standards and petaloid stigmas sulphur flushed.

MARMORA: falls purple shading to lilac, beard yellow, the claw on each side reticulated white; standards lilac bronze; petaloid stigmas sulphur bronze.

MISS ECCLES: falls purple shading to maroon and reticulated with white; standards and petaloid stigmas bronze yellow.

MONS. CHEREAU: falls maroon crimson veined and mottled with white and yellow, beard orange yellow; standards glittering brown bronze; petaloid stigmas sulphur.

MOZART: falls light purple shading to brown and veined with white; standards and petaloid stigmas coppery brown.

MR. SHAW: falls velvety purple crimson, reticulated with white and mottled with yellow, beard orange; standards and petaloid stigmas fawn shaded bronze lilac.

MRS. MESTON: falls purple, beard orange yellow,

the claw on each side mottled yellow and white, overlaid with cinnamon; standards purple bronze, base spotted brown; petaloid stigmas purple shading to yellow.

MURAT: falls rich velvety violet purple, beard yellow, the claw on each side reticulated white and yellow; standards bronze tinged purple, base spotted and veined with crimson; petaloid stigmas sulphur barred with lilac.

PANCRATIUS: falls light purple shading to lilac, beard primrose, the claw on each side mottled white and yellow; standards and petaloid stigmas bronze fawn.

PARNELL: falls velvety crimson shaded with maroon, beard orange yellow; standards fawn flushed bronze; petaloid stigmas sulphur bronze shaded lilac.

SALAR JUNG: falls rich velvety crimson reticulated white and yellow, beard yellow; standards rich bronze flaked with crimson-purple, base veined crimson; petaloid stigmas sulphur.

SIR WALTER SCOTT: falls rich velvety crimson veined with white, beard primrose; standards sulphur bronze lilac, base spotted brown; petaloid stigmas sulphur barred with lilac.

SIR W.M. HARCOURT: falls crimson shaded with purple, beard full yellow, the claw on each side with white purple and yellow netting; standards bronze lavender margined with primrose, base spotted brown; petaloid stigmas sulphur bronze.

VAN GEERTII: falls velvety purple crimson edged with white, beard orange yellow, the claw on each side reticulated white and purple; standards purple bronze, base spotted purple; petaloid stigmas sulphur barred with lilac.

VINCENT: falls light purple shaded with white, beard primrose, the claw on each side reticulated white and brown; standards and petaloid stigmas primrose flushed with bronze.

WALNERIANA: falls rich violet, beard orange yellow, the claw on each side reticulated brown and white; standards bronze violet, base spotted brown; petaloid stigmas lilac shading to fawn.

IRIS VARIEGATA.

ALBA (INNOCENZA): falls white, beard primrose, the claw on each side veined purple; standards pure white, with bronze spots at base; petaloid stigmas pure white.

ABON HASSAN: falls reticulated brown and yellow with yellow edge, beard yellow; standards and petaloid stigmas rich full yellow.

ADONIS: falls reticulated crimson and white, edged white, beard yellow; standards and petaloid stigmas rich chrome yellow.

APOLLON: falls crimson mottled and reticulated yellow and white, beard orange yellow; standards and petaloid stigmas full sulphur yellow.

ARMETTE: falls purple reticulated with white, beard yellow; standards and petaloid stigmas sulphur white.

ASHMEAD-BARTLETT: falls purple crimson reticulated white and yellow, beard orange; standards and petaloid stigmas rich orange yellow.

AUGUSTINE: falls rich maroon crimson, beard orange, the claw on each side reticulated cinnamon-brown and white; standards orange yellow spotted brown; petaloid stigmas yellow.

AUREA: falls full yellow, beard yellow, the claw on each side flushed white and netted brown; standards and petaloid stigmas rich full yellow.

BEACONSFIELD: falls rich velvety crimson edged with primrose, beard primrose, the claw on each side reticulated white; standards primrose, base spotted purple; petaloid stigmas primrose barred with lavender.

CHÉNÉDOLÉ: falls crimson shaded maroon with

- white reticulation, beard orange; standards and petaloid stigmas primrose bronze.
- DANDY: falls rich velvety maroon crimson edged with yellow, beard orange yellow, the claw on each side veined white; standards full yellow with a bronze flush and veined with brown at the base; petaloid stigmas brighter yellow.
- DARIUS: falls purple edged with primrose, beard orange; standards and petaloid stigmas chrome yellow.
- DE BERGIANA: falls rich velvety maroon crimson, beard orange, the claw on each side reticulated yellow, white and crimson; standards full yellow, at base spotted crimson; petaloid stigmas yellow.
- DIANA: falls rich velvety maroon crimson, reticulated with white, beard yellow; standards and petaloid stigmas light clear yellow.
- ENCHANTRESS: falls crimson maroon reticulated with white and yellow, beard orange; standards and petaloid stigmas fine clear yellow.
- FAVOURITE: falls purple edged with sulphur with white line running down centre, beard primrose, the claw on each side white prettily veined crimson; standards and petaloid stigmas rich primrose.
- GANYMEDE: falls crimson shaded chestnut reticulated with white and yellow, beard orange yellow; standards full yellow blotched with dark velvety crimson; petaloid stigmas yellow.
- GATHORNE HARDY: falls purple maroon edged with primrose and reticulated with white, beard yellow; standards canary yellow, base spotted brown; petaloid stigmas sulphur.
- HECTOR: falls rich black velvety crimson with black bar running down the centre, beard orange yellow; standards primrose with a bronze flush, base spotted brown; petaloid stigmas pale purple edged with yellow.
- HONORABLE: falls suffused crimson brown and reticulated with white and brown, beard yellow; standards and petaloid stigmas full rich yellow.
- HUMBOLDTII: falls crimson maroon, beard full yellow, claw on each side reticulated white and yellow; standards and petaloid stigmas full yellow.
- J. B. M. CAMM: falls purple suffused with white, beard orange yellow, the claw on each side reticulated white and yellow; standards clear light yellow, base spotted brown; petaloid stigmas yellow.
- LEOPARD: falls light purple veined with white and edged with primrose, beard yellow; standards and petaloid stigmas fine light yellow.
- LESLIE DE VINE: falls velvety crimson shaded maroon, beard yellow, claw on each side reticulated yellow and crimson; standards yellow flushed with bronze at apex, base spotted purple; petaloid stigmas yellow tinged with lilac.
- LOUIS DE CERISE: falls crimson maroon reticulated with white and yellow; standards and petaloid stigmas fine yellow.
- MAGNET: falls rich velvety crimson, beard orange, the claw on each side reticulated yellow; standards and petaloid stigmas rich full yellow.
- MAJOR: falls crimson edged with yellow and reticulated with white and yellow, beard orange yellow; standards and petaloid stigmas yellow flushed with orange.
- MALVINA: falls crimson veined with white and yellow, beard orange; standards and petaloid stigmas clear light yellow.
- MEXICANA: falls flushed crimson-brown edged with yellow and reticulated with white and yellow, beard yellow; standards and petaloid stigmas rich full yellow.
- MINICO: falls rich velvety brown, beard full yellow, the claw on each side reticulated yellow; standards and petaloid stigmas rich full yellow.
- MINOS: falls rich velvety crimson reticulated with white, beard orange yellow; standards and petaloid stigmas primrose.
- MR. CROSS: falls suffused purple brown, reticulated with white and yellow, beard yellow; standards yellow, base spotted brown; petaloid stigmas sulphur tinged with lilac.
- MULTICOLOR: falls crimson, edged with yellow and veined with white and yellow, beard yellow; standards and petaloid stigmas full deep yellow.
- ORPHÉE: falls reticulated white and crimson, beard yellow; standards and petaloid stigmas rich full yellow.
- PETER HANSON: falls elegantly reticulated with crimson, white and yellow, beard orange; standards and petaloid stigmas rich bright yellow.
- PHIDIAS: falls crimson-brown, reticulated with yellow and white, beard orange; standards and petaloid stigmas rich full yellow.
- PRINCE OF ORANGE: full rich maroon-crimson, beard orange, the claw on each side reticulated white and yellow; standards and petaloid stigmas orange-yellow.
- PRINCE OF WALES: falls crimson-maroon, veined with white and netted with yellow, beard yellow; standards primrose-yellow, base spotted brown; petaloid stigmas yellow.
- REBECCA: falls rich crimson-maroon, beard yellow, the claw on each side veined white; standards sulphur with bronze flush, base spotted brown; petaloid stigmas sulphur barred with lilac.
- REGINA: falls white conspicuously and prettily veined with purple and with yellow edging, beard orange yellow, the claw on each side yellow netted with crimson; standards and petaloid stigmas rich primrose.
- RIGOLETTE: falls maroon-crimson, reticulated with white and yellow, beard orange; standards and petaloid stigmas full yellow.
- SAMSON: falls crimson reticulated with white and yellow, beard orange; standards and petaloid stigmas rich yellow.
- SANS SOUCI: falls reticulated crimson and white with central yellow bar, beard orange; standards and petaloid stigmas soft fine yellow flushed with orange.
- SIR TREVOR LAWRENCE: falls velvety maroon crimson, beard orange; standards full yellow spotted with brown; petaloid stigmas yellow.
- SPECTABILIS: falls intense deep velvety crimson, beard orange yellow, the claw on each side reticulated with white; standards and petaloid stigmas rich full yellow.
- VENUSTA: falls rich vinous crimson, beard yellow, the claw on each side veined purple and white; standards sulphur bronze, base netted brown; petaloid stigmas primrose barred with lilac.
- VERSAILLAISE: falls rich velvety crimson, the claw on each side white and yellow; standards yellow flaked with brown, base spotted purple; petaloid stigmas yellow.

AMONGST GOLD-LACED POLYANTHUSES, a seedling named *Zoe*, raised by Mr. W. Bolton, of Warrington, has received a good character. It has a rich black ground, with a fine clear golden centre, and a well-defined lacing of gold; the pip and truss are both good. The flower is something like Cheshire Favourite, but of a paler colour both in the centre and lacing.

PRUNING CONIFERS.

THE severe winters of 1880—1881, and of 1881—1882, did great injury to many fine Conifers in many places. Many of the leading and some of the side shoots have been killed back; the trees have suffered much on the side exposed to the winds. During the present and last season the trees have wonderfully improved, and with attention and careful pruning many of them may be brought into good form. As most kinds of Conifers will be improved by pruning, the trees should be gone carefully over. When the leading shoot has been injured the most promising shoot should be looked out, and tied carefully to a stake; a little fern or straw should be tied over it to protect from frost; the side shoots should be carefully gone over, and tied in carefully where they require it. Where the trees have for some time not been attended to, it takes a little time to go over a quantity, but when they are looked over annually they do not take up so much time in regulating the shoots. Young trees should be looked over very carefully, and have the shoots thinned out and be staked as they may require it. By attention the foundation for handsome specimens are laid. The hot weather and long-continued drought during the present year, will have done much towards the thorough maturation of the wood and buds, and in consequence we may look forward for strong, healthy, vigorous growth.—M. SAUL, York.

FRUIT NOTES.

WHEN reading the varied reports of the fruit crops this season I have felt sure, as I have often done before, that in many cases failures are attributed to something quite opposite to the real causes, such as a certain position of wind, frost, rain, hail, or such like. This is often too true, but after such a universal heavy crop of Apples and Pears as we had last year it was almost too much to expect anything like fair crops this season. We note in an old orchard here (some 6 acres) that the trees which were extra heavily laden last season are bearing very scanty crops this year. Every fruit-bud having been put to the test it would almost have been too much to have expected the same old trees to have been so productive this season. We

cannot point, after careful observation, to any severity of weather in any stage of the fruiting process. The previous year the weather was ten to one less favourable during the flowering or setting period, when the crops set so heavily that at gathering time the work was a formidable one, but such as delighted the school children of six different schools, who had liberal supplies. It gives much genuine happiness to proprietors when they can afford by this means to give pleasure to the young, who can so well reciprocate such.

To secure a fair supply of fruit every season in almost any district where it will grow, it is necessary to find out what suits the district—there being kinds, if not always of the best quality, which may be found certain to bear crops every year. We know where selections of mostly every kind of hardy fruits are to be found which are never known to fail, let the season be what it may. As for Apples, one need not find it a difficult matter to select a few kinds which always appear more or less in the annual reports as bearing crops without fail. It has always been our practice to plant the following kinds, and we have advised others when our advice has been solicited. The reports of such kinds, from districts many miles apart, are of the most satisfactory character, and uniform success with such extends over a period of more than twenty years:—*Lord Suffield, Stirling Castle, Heiton House, Keswick Codlin, Dumelow's Seedling, Northern Greening, and King of Pippins*. The last answers for dessert as well as for kitchen purposes. These all are certain bearers from the south of England to well north in Scotland. Trees planted on a firm bottom of loam and lime rubbish mixed, and well mulched, will come into bearing the first year after planting and produce freely every year. Some fruit farmers plant Lord Suffield and Stirling Castle by the acre, now that their characters are so well established. Heiton House, a kind we did not know before coming here two years ago, is a wonderful bearer; comes into use in October, and will keep in good condition to April or May.

Some are making a deal of the pruning mania, but we know that the successful growers of large fruit and abundance of it every year, prune moderately; and numbers, whom we know, reduce their work on the tops of the trees, by doing it piecemeal at the



W.H. Fitch del.

Apple Golden Spire

roots, thus keeping an equal balance between top and bottom, and securing healthy matured growth with plenty of fruit buds.

Within a few yards of where we write, in one of the oldest kitchen gardens in the kingdom, are a number of trees of Heiton House, Stirling Castle, and Keswick Codlin, which have been pruned severely year by year. Crops have been, and not mean ones, grown close to their stems, on deeply dug and heavily manured ground, showing that neither the severe pruning nor heavy cropping affects their bearing; while the unpruned trees close by bear heavy crops one season out of three. It was refreshing, two years ago, when taking a tour from the Midlands of England to see the trees referred to in this kitchen garden loaded to the breaking of their branches, and not a third-rate crop to be seen anywhere else. In the old unpruned orchard close by (of six acres), there were not six bushels of apples and pears. We would advise fresh beginners not to go to the extreme on either side of non-pruning or severe pruning. Keep the roots near the surface and a mass of fibre, and we have no fear of good results.—M. T.

APPLE, GOLDEN SPIRE.

[PLATE 624.]

THERE are but few more handsome Apples than the one which is the subject of our present notice and illustration, viz., GOLDEN SPIRE. The name is very appropriate, since it approaches more nearly to the idea of *Golden* than any other Apple we know; and in shape and build it is very spire-like. This beautiful Apple seems to belong to the western counties, where it is not only considered an excellent culinary variety, but is also used largely for cider purposes. It is but rarely grown in the neighbourhood of London, and only within the last few years have we noted its appearance on the exhibition table. Mr. Haycock, of Barham Court, Maidstone, knows its value, and cultivates it with great care. At the National Apple Congress it was represented in seven collections, the examples from which our illustration is taken being exhibited by the Cranston Nursery Co., Hereford.

The variety may be thus described:—
Fruit large, conical, somewhat angular, espe-

cially near to the eye. Eye open, deeply set; stalk short. Skin of a pure uniform golden yellow throughout, very clear. Flesh white, tender, somewhat acid. Season, October to Christmas. The tree is stated to be a great cropper.—A. F. B.

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THE SHANKING OF GRAPES.

AS long as I can remember this has been a vexed question. Some who have held strong opinions as to its cause have cancelled them long ago, and are now undecided; and many are now aware that the evil may have its root from opposite circumstances and from causes which are not suspected. Wet stagnant borders are blamed, also dry porous ones, late unripened growth in autumn, overdosing with manure, sudden and unnatural reduction of foliage, and starvation—from any cause, or as adduced by Mr. Eckford (p. 165). I find fault with no opinion, being well aware that diseases among lower animals and human beings have a primary cause which works through channels where it never would be suspected or believed to exist till the naked truth is unmistakably revealed. I have noted what Mr. Eckford wrote in his former article referred to, and sympathise very much with his views—namely, the having roots entirely under control in a limited border, while at the same time we know of old vines which did well before the writer ever saw a vine, and are now in good condition, with the roots extended far across a vegetable garden where *trenching* and *manuring* are done with general disregard for anything in the ground beyond the culture of the vegetable crops, and yet shanking was never known.

I will quote the following cases, giving my views on the cause of shanking connected with each. I will go back say twenty-five years or more. In a garden in the West of England was a vineyard, which might be called an “over average” house, in which good fruit had been produced for some time; but one season when it was supposed to be at its best, the berries

both large and offering to finish well, shanking set in and destroyed about half the crop. The border was examined as soon as the ripeness of wood would allow a little excavation, and it was found that the roots were in a well made border of healthy soil, in which drainage had been well placed and all apparently satisfactory, nevertheless shanking had ravaged the crop. The reason I assigned was that the roots had run through the rich porous border which had nourished the vines and supported good fruit; but their being no barriers to keep them in the border, they had run into the subsoil, which was an inert kind of clay, where they were kept from the warmth of sun, and air was kept out. Here, the want of food at the time the grapes required the largest supplies was, no doubt, the real evil. In this case the roots should have been kept back by barriers, which they would probably have struggled through during a course of years, but when they reached the clay they should have encountered brick-work in cement to keep them back altogether.

I now take a vineyard in another part of the country, East Anglia. A vine of Josling's St. Albans brought through the end of the house from a common vegetable brake, where the vine roots had to take their chance; but they had grown a great distance and far into the deep strong soil. The grapes coloured well, cracked little (that kind is very liable to crack when ripening), and were on the whole very fair examples, but all the other grapes in the house shanked to a bunch. It was found that the border, like the one first referred to, had no fault of its own, but the vines had got far beyond it into a strong wet clay in which there was nothing to sustain a vine. Annual dressings of manure to the border were simply labour thrown away, because the feeders were not there to receive the nutriment.

We pass to another vineyard in the same locality, where grapes were grown extensively and well. The roots had gone far out under the walk into the vegetable garden, where they were well tended with liquid manure, and the ground so cultivated that vine roots and vegetables had their full requirements. The result here was all that could be desired. The old border, which was narrow, had little attention either with manure or water (bone or

artificial manure never had been used), simply because the feeders were not there. In the same garden there were two vines to which my attention was specially called. One a Hamburg at one end of a house shanked every year; the other a Muscat at the end of another house which always failed, though both did well till the "tug-of-war" was applied to the roots in the shape of a heavy demand at stoning time. The Hamburg roots had forced their way under a fig outside, where little or no moisture could reach them when the greedy fig was maturing its crop, and I (and also my friend, who was such a successful cultivator of the other vines on the place) was left without a doubt as to the cause. The Muscat, instead of getting away into the vegetable ground along with its neighbours, had its progress arrested by gravel, sand, and other almost inert substances in which it could find nothing after a certain time of year when much was required, and as a matter of course shanking followed, and red spider also.

Among a great number of cases I will confine myself to three more of the most prominent which I have a distinct recollection of. In a Midland county of England, where grapes at a private place had for years been grown with astonishing success, and had often been referred to in the gardening papers as examples which might be imitated, the vines in time began to show signs of retrogression by producing smaller foliage and more diminutive bunches. The cultivator in charge was not to lose the laurels which he had so long and deservedly worn without an effort to maintain his coveted position; but alas for "schemes of men and mice," this gentleman's best plans led him quickly on rocks of despair. New borders were made on the most approved plans—soil, bones, drainage, &c., being all done, as one would say, to perfection. Porosity of borders was greatly lauded at the time these scientific borders were formed, and these had it with a vengeance. No grapes after years of care, anxiety, and manipulation were cut good for anything; the wood was strong, the foliage of great size and leathery. What then was the cause of the wholesale destruction of such promising housefuls of grapes by shanking? Scientific men who were called to the rescue pushed their sticks down into the porous

borders, which were wide and uncropped either with flowers, fruits, or vegetables, moisture seemed to have been judiciously supplied, soil of the best quality for producing grapes provided, in fact everything appeared superior to the old borders which had done good service. I did not hear that ever the roots were examined beyond the very "porous border," not a word was written about the position of the feeders, and I have no doubt that if they had had such a border to ramble in as far as they chose to grow, shanking would never have been seen. Or had they been prevented by bricks and cement from penetrating the poison beyond the border and forced to turn into a backward course, all other requirements, water especially, being well supplied, the results would have been very different.

In a place near London (a place where excellent grapes are now grown) a splendid large viney was added to the glass. I called to see the promising vines in this house; that being the first season of cropping only a few bunches were retained on each, but they were all shanked, the leaves remaining in grand condition. The gardener attributed failure to his "having watered the vines once too often," and too late in the season. This was only August, and the old viney on the place, which had been deluged out and in were carrying fine *unshanked* crops. The watering appeared to me to have been so scanty as not to have got to the bottom of the new extra drained border nor to the front, the border being formed on the good piecemeal system.

The last case I will refer to is a border which I had to renew many years ago. The drainage resting on a bottom of sand seemed perfect, the roots were matted to the surface of the border, and everything seemed perfect. But after a vigorous growth for some time—large leaves and heavy bunches being formed, all a picture of success—at stoning-time a miserable sight always appeared, shanking such as is seldom seen took place. The roots had gone through the drainage deep into the sand, where they starved for want of food. From these facts readers may draw their own conclusions.—M. TEMPLE, *The Gardens, Curron House, Falkirk.*

FRUIT-TREE STOCKS.

AS pomologists we are here to devise ways to produce better fruit, and more of it. Enemies may assail and friends falter, but fruit is a foregone conclusion. Its exquisite flavours were put in as persuasives to its use. Nutritious, healthful, economical, it was meant to be eaten. As a peep into possibilities we find that one apple-tree, growing on less than two rods of ground, has produced in a single year a hundred bushels of fruit—in some recorded instances more. Two pear-trees on the same amount of land have done as well. It is safe to say that never in the history of the world has one-fourth as much sustenance for man or beast been derived from roots or cereals occupying equal space. A grape-vine is a wonderful economist of space; occupying a crevice in a rock, or a contracted corner where nothing larger than a thistle could grow, it climbs a tree, the side of a building, or runs along a fence and furnishes a delicious dessert for fifty people. Considerations like these are worthy of notice, when Mill and other economists assure us that population is, and will be, limited by the means of support. Starvation sets bounds to human life.

It is well known that our best flavoured varieties are not as hardy and do not bear as well as the coarse rough iron-clads. The iron-clads have their uses—for vinegar, jelly, and for fueling they are admirable; but iron-clads won't fill the bills. The public taste is constantly growing more refined and critical. Inferior qualities find none so poor as to do them reverence. Steam and machinery are changing the make-up of the labouring masses; by relieving them from heavy debasing drudgery, and employing their higher faculties in skilful manipulations and the guidance of forces; perceptions and sensibilities become acute, their grain becomes finer; fine-grained people demand fine-grained apples.

Doomed and foreordained to have good fruit, how shall we get it? * * * We shall not go to the cider-mill for seeds to propagate nursery stocks, knowing as we do the sources from which the incongruous mixture comes. Here is the produce of trees enfeebled by forty years of abuse and starvation, inflicted by unrighteous ploughmen and grain-growers.

More dead than alive, as a last expiring effort, they gave their perverse owners a few immature apples by way of "turning the other cheek also." Here, too, are seeds from trees constitutionally feeble, that never could be forced into vigorous and healthy growth by anything short of Warner's safe kidney cure. Here is the product of small crabbed, scurvy trees, which bear fruit flavoured with vinegar and gall, its pulp bearing a close resemblance to pulverised sole leather; if like begets like, if the stock influences the graft, we shall get away from such a collection without standing much on the order of our going. A leading nurseryman tells us that "seedlings of free stocks are ordinarily produced from seeds taken promiscuously from the cider-mill in autumn." The same authority, speaking of Pear seedlings, says, "Great care should be taken to gather the fruits of the hardy, healthy, vigorous trees only, and the seeds should be full and plump." You will find this in *The Fruit Garden*, by P. Barry, to whom we and the rest of mankind owe much. We should discard all seed from grafted stocks. "Ninety-nine cases out of a hundred," says a report in the *Maine State Pomological Transactions* for 1882, "the natural fruit stock is the best."

That the young tree takes its character from the seed, and to a large extent gives character to the graft inserted in it, has never been disputed, and never much heeded. Nurserymen admit the fact, and pay no attention to it. Our neighbour, Mr. Gorton, top-grafted a row of English Russets with Roxbury Russets, and they have uniformly borne more and finer Apples than other rows of root-grafted russets by their side. George W. Campbell in *Transactions Michigan Pomological Society* for 1877, says he grafted "a light blush rose, finely formed, but of a light undecided colour, on a very dark crimson rose not well formed. The buds grew, and retained their habits of growth and foliage and form of flowers, but they took the dark crimson colour of the stock on which they were budded." There is every reason to believe that if we should grow our seedlings from the seeds of carefully selected good flavoured fruit grown on vigorous, healthy, good-bearing trees, and persevere in that

way, a gradual improvement would be effected in yield, quality of fruit, vigour, and productiveness. Not less important is it that scions for grafting should be taken from healthful trees that have proved themselves good bearers of handsome high-flavoured fruit. If the nursery practice of taking scions from young trees is continued for fifty years, twenty generations will succeed each other not one of which ever produced a blossom. Surely at the end of that period they will forget what they were made for. Their fruit functions will be weakened, and ultimately eliminated for want of exercise. An eminent scientist who gave more thought to this subject than any one before or since, has said that if a man should tie his right hand up in a sling and never use it, and his descendants should all do the same, that member would perish, and his progeny would in the course of time be born without right arms.—HUGH T. BROOKS, *Pearl Creek*, in *Proceedings of Western New York Horticultural Society* (p. 55).

CAPRICIOUSNESS OF THE FRUIT CROPS OF 1884.

THOUGH general failure is the true estimate of the Fruit Crops of the season, there are fortunately many exceptions to confirm the rule of ruin. Never perhaps was there a finer promise, seldom if ever a more general havoc and failure. Yet immediately after the severe frosts—during the blooming season amounting in many districts to from fifteen to twenty degrees—it was seen that while the Apricots were mostly taken, Peaches and Nectarines were spared or left. And even the Apricots escaped in some gardens, and good crops have been harvested in prime condition in not a few places.

Next to the Apricots the Plums suffered the most. The trees, white as sheets, were blackened in a night, and all the fair prospects of a Plum season totally destroyed. And yet here and there—cases are rare, still they exist, and a notable example has recently come under my notice—there is a fair crop of Plums of all sorts, including Gages, which suffered the most by the stinging April frosts. More curious still, in a row of a dozen pyramidal Victorias eleven are fruitless, and

one only had a good half crop. In a row of Pond's Seedling, all are fruitless but three. Gages are *nil*, with the exception of a Guthrie's Late Green on a wall. Of three Golden Drops on the same wall, two are almost bare, while the third is fairly hung with fruit.

Equally surprising differences may be noticed among Pears. To begin with the bloom; this was of very variable and highly varying quantity. Mostly under average, it sank from this to the smallest proportions, and in one instance to *nil*—in a garden of four or more acres, well furnished with pears alike on and off the walls.

Apples bloomed late and well a full month or more after the stinging frosts, and almost every one counted on a full crop to partially recoup cultivators for the failure of other crops. But the crop set as a rule badly, and over large districts not at all, so that there is a grievous and general failure of the most useful crop of the year. Besides, in not a few gardens, hardly had the apple crop set till it hastened to drop, and it has gone on dropping prematurely all through the summer. And yet in other places, and we are amongst them, there is a full half crop of Apples, and though rather smaller than usual, the quality promises to be good. Here and there, too, one comes upon gardens and orchards full of fruit.

The severe frosts in April hit the Gooseberries and Currants in a most critical condition, and almost every one thought that these were ruined; they were, however, little or none the worse, unless just on the crowns of the bushes, and the general verdict is a full crop of bush fruit, and of excellent quality.

Raspberries also showed, and began to swell an abnormally large crop; and had this not been seriously reduced in size by the severe and long-continued drought, the crop would have reached to an unprecedentedly heavy gross weight.

Strawberries as a rule were plentiful and good, the season being, however, seriously shortened by the heat and the drought. Here and there, however, the crop was also considerably crippled by the frost, and the yield was much under average.

Some of these variable results may be explained by reference to soils, sub-soils,

sites, shelter, cultivation, &c. But making due allowance for all these disturbing forces, the extreme variations in the fruit crop ranging over the wide area included between a full crop at one end of the scale, and entire failure at the other, are in many cases inexplicable.

While these remain in obscurity, such variable results will assuredly continue. No forethought or skill can possibly grapple with or master influences so subtle and hidden as to remain undiscovered and unknown. Hence our fruit successes and failures should teach cultivators humility, and fruit consumers patience and forbearance with those responsible for the supply of their wants.

Should a dripping autumn succeed to this abnormally dry summer, as it now (September 4) threatens to do, it will be well to check late growth, and force early maturity by root-pruning as the surest means of obtaining a crop of fruit in 1885.—D. T. FISH, Hardwick.

SIMPLE MULCHING.

THE past season appears to have been (throughout the British Isles at least) one of the driest we have experienced for many years. During May and June we did not have a shower to moisten the surface of the ground, but wherever mulching was applied every fruit-tree, shrub, and vegetable did well. Watering was not had recourse to except in the cases of newly planted shrubs and vegetable plants, and to them only once when they were placed in the ground. Much of the mulching (to which I specially wish to refer) was only waste soil, and where it was used one or two inches thick the plants did extra well! Four lines of pansies, about 80 feet long each, bloomed more freely and continuously than I ever remember them doing, and these were last year's plants. They began to bloom at the end of March, were mulched with soil only, and continued a dense mass of flowers till now (September).—M. TEMPLE.

REGISTER OF NOVELTIES.

NEW FLOWERS.

CARNATION (Perpetual) Chevalier.—Pale primrose, flaked with bright deep rose, and slightly dashed with white, excellent free branching habit, good full flowers; 1st-class Certificate R.H.S., November 12; Hooper & Co.

CHRYSANTHEMUM (Japanese) Criterion, a very handsome variety with large and full amber-coloured flowers, extra fine for exhibition and decorative purposes. *Roseum pictum*, deep purplish rose, the reverse

of the petals silvery blush; large and very fine; a grand exhibition variety. Both the foregoing have been in cultivation for a few years past; 1st-class Certificate R.H.S., November 12; Veitch & Sons. *La Bien Aimée*, white tinted with lilac, or delicate blush; a very large full flower of great delicacy and beauty. *Cullingfordii* (Cullingford), a magnificent reflexed variety of the large-flowered section; a really grand variety, of a rich shining orange-crimson colour, the reverse slightly golden; the very best of all the crimson reflexed flowers; 1st-class Certificate R.H.S., November 12; H. Cannell & Sons. (Japanese) *La Pureté*, pure white, with long recurved funnel-shaped florets; very large and full, extra fine; 1st-class Certificate R.H.S., Nov. 12; J. Laing & Co.

The following new varieties of Chrysanthemums were shown by Messrs. J. Laing & Co.:—*Carmen* (incurved large flowered), deep red, the petals finely incurved, reverse bright golden yellow; extra fine, but not seen to the best advantage on this occasion. *Mons. Tarin* (Jap.), violet rose, shaded with silver, large and very fine. *La Nigrière* (Jap.), deep bright crimson, very fine. *Galathée* (Jap.), deep pink, long thread-like petals. *Président Lavallée* (Jap.), a fine incurved form, deep reddish brown, shaded with purple; large broad petals. *John Laing* (Jap.), rich crimson, shaded with brown, flowers of large size, very fine. *Madame de Sevin* (Jap.), pale purplish magenta, very fine. *Brise du Matin* (Jap.), delicate pink, very pleasing in colour. *Beauté des Jardins* (Jap.), bright magenta; and *Elégant* (Pompon) gold and brown, small, of the shape of Model of Perfection, very pretty.

The following were shown by Messrs. James Veitch & Sons:—*Talfourd Salter* (reflexed), bright orange red, the sides, points and reverse of the petals golden, very distinct and showy. *Fleur des Bois* (Jap.), brilliant red, one of the very brightest, bold and showy. *Mdlle. Antoinette Brunel* (Jap.), blush quills to petals, flattened ends, deep cerise shaded; distinct in character. *L'Honneur* (Jap.), pale orange red, the reverse bright gold, free and distinct. *M. Leon Brunel* (Jap.), pale quilled florets, feathered at points, and of a bright brilliant red colour; distinct. *Colibri* (Jap.), bright maroon, thread-like petals; full and distinct. *John Laing*. *Ganymede* (Hyb. Jap.), a reflexed flower, having deep rosy lilac petals, the centre petals having a pale reverse. *Belle Alliance* (Jap.), pale red, large and very showy. *Mad. Urgel* (Jap.), bright lilac, narrow petals; very pretty. *Boucharlat ainé* (Jap.), bright red, the reverse gold, very showy. *Fernand Feral* (Jap.), delicate lilac, large, full and handsome. *Formosa* (Jap.), pale rosy magenta, large broad petals. *L'Alsace* (Jap.), distinct, rosy lilac, bright in colour, tipped with white.

The following shown by Mr. A. Salter, were also shown by Messrs. Veitch & Sons:—*Mary Salter* (Jap.), in the way of Fair Maid of Guernsey, larger, fuller, the petals broader; extra fine. *Tubiflorum* (Jap.), a variety with tubular-shaped petals of a pale rosy-lilac colour; and *Singularity* (Jap.), bright pale-red; very free and fine.

Messrs. H. Cannell & Sons, Swanley, had the following Japanese varieties:—*Mons. Tarin*, *Boucharlat ainé*, *Val d'Andorre* (Jap.), pale orange-red, bright and showy. *Julius Scharff* (Jap.), rosy pink, very bright, thread-like petals; pretty and distinct. *Madame Feral* (Jap.), very broad petals, lilac-purple; bright and showy. *Mignon* (Jap.), type of Alfred Salter, bright lilac; delicate pink reverse. *L'Or du Rhin*, very bright gold, small thread-like petals; a fine hue of colour. *Black Douglas* (Pompon), a charming bright chestnut red, style of Marabout; compact and very pretty. *Volcan* (Pompon), pale chestnut-red, but not particularly full. Also the following single-flowered varieties:—*W. A. Harris*, a single form of Peter the Great, pale yellow. *Kate*

Henderson, delicate pink margined white; pretty and distinct. *Magenta King*, rich deep magenta; bright and showy. *Mr. Wills*, rosy-magenta, a little loose; large and showy. *Sunset*, reddish-bronze, with a slight golden tip; distinct and fine. *Rev. A. H. Glennie*, bright dark pucey-red, the edges of the florets shaded with dark; fine and distinct. *Peter Henderson*, the florets reddish-brown, with yellow reverse, slightly flaked with red.

CHrysanthemum (Pompon), *Anais*, a little beauty, buff pink and yellow, small flowers compact; very fine form, and very free; 1st-class Certificate R.H.S., Nov. 12; J. Laing & Co. *Star of Whyke* (Teesdale), a charming variety with medium-sized reflexed flowers of the purest white; an excellent variety for cutting from, because so very free and attractive; 1st-class Certificate R.H.S., Nov. 12; H. Cannell & Sons.

CUPRESSUS LAWSONIANA FLEETI, a very handsome glaucous or silver variety, much more markedly coloured in this respect than is common to many Silvery Conifers; 1st-class Certificate R.H.S., Nov. 12, 1884; G. Fleet.

IPOMEA THOMSONI, a pure white variety of the I. Horsfalliae type, a great novelty and of high quality; good habit and very free; 1st-class Certificate R.H.S., Nov. 12; Veitch & Sons.

PELARGONIUM (Zonal) La Cygne, a pure double white variety, bearing large finely formed flowers of great beauty, the young flowers tinted with delicate yellowish green, which quite passes away with age, a charming variety for pot culture; 1st-class Certificate R.H.S., Nov. 11; H. Cannell & Sons.

SENECIO pulcher, some very fine plants of this were shown by Mr. A. F. Barron, bearing large flowers of a fine clear bright purple hue; very handsome and attractive; 1st-class Certificate R.H.S., Nov. 11; Chiswick Garden.

VIBURNUM TINUS, aurea variegata, a variety of the Common Laurustinus, with the leaves margined with pale yellow; 1st-class Certificate R.H.S., Nov. 11; C. Lee & Son.

GARDEN GOSSIP.

— **W**E never hear now-a-days the name of Donald Beaton spoken of in connection with COOL ORCHIDS. If, however, we are not mistaken it was he who led the way, and to him in that case the credit is due of having secured a widespread benefit for Orchid lovers. At least so early as 1841, he mentions the receipt, by Mr. Harris of Kingsbury, to whom he was gardener, of a collection of Orchids from the high mountain districts of Mexico, and he says "they may be cultivated in the greenhouse." He laid them, with a thin layer of damp moss beneath, on the shelves in a seed-room (temp. 35° to 45°) and they did far better than the same species put into heat. The next winter he proposed to keep them in a temperature of 40° to 45°. In a subsequent letter to Sir W. J. Hooker, he writes, "I am enabled to give a fuller list of the hardy Orchideæ mentioned in my former letter. I believe this will be the first notice of plants of this tribe having been subjected to a cold temperature in this country; and I have ample proof that these and many others will not do so well if they are subjected to a heat above 50° or 55° in winter."

— **I**N reference to ROOT-PRUNING, Mr. Rivers argues that a fruit-tree requires the same treatment underground as the tree above ground. The roots, corresponding to the branches, are constantly pushing forward into fresh pastures to feed the rootlets, which, like the leaves, are annual.

If these roots are pruned close to the stem, and compelled to produce rootlets in soil which has already been searched and exhausted, it can hardly be expected that they will flourish; but if the root-pruned tree be annually supplied with new material or fresh soil, the roots or underground branches will produce rootlets ready to feed and to take up all the nutriment contained in the added soil. Some experimental trees, grown in perforated pots, were remarkable for the extraordinary rapidity with which roots were emitted into the soil outside the pots into a prepared border. It is probable, he observes, that when annual root-pruning by means of perforated pots is well understood and intelligently worked out, a complete reformation will be effected in the production of fruit.

— **T**HE CONVOLVULUS CUPANIANUS of Todaro is a very pretty dwarf annual, which seems to be little known in cultivation, and yet it is one whose beauty should secure it a place in every garden where flowers of this class are grown. What its origin is we know not, but as it is something like a small dwarf form of the *Convolvulus tricolor* (*minor*) it may possibly be an Italian hybrid, raised between that species and some of the smaller ones like *C. cantabricus*. It is a decumbent plant with small oblong blunt leaves, and flowers which are coloured in zones with blue yellow and white, and much enlivened by a series of black spots some distance within the margin.

— **T**HE question of GUMMING ROSES has lately been a source of controversy, an exhibitor at Leek, having, it is stated, transgressed in this particular way, and his act, when the question was brought before them, being endorsed by the National Rose Society under the plea that the Society had no rule to the contrary. But *honesty* in exhibiting is always understood by unwritten law, even where there are no "rules." There is, however, a rule in the Leek Society's Schedule, which meets the case, unless perversely read, and this rule which was before the National Society is printed it seems in large type, and is to this effect—"Roses to be shown as cut from the plant." The sooner the National Society purges itself of this condonation of malpractice the better for its reputation.

— **W**E find that the paragraph on IVY LAWNS, quoted at p. 176 from an Irish paper, forms part of an article on the subject, published originally in the *Gardeners' Magazine*, where the subject is much more fully treated on.

* * * After regularly appearing month by month under several modified forms since 1848, the FLORIST AND POMOLOGIST will now be discontinued. Its 37 volumes, which represent thirty-seven years of labour on the part of ourselves and our predecessors, furnish a record of the floral work of that period, and its 624 plate illustrations, for which a first-class character may fairly be claimed, will remain as evidence of the advances which have taken place in the popular Plants, Flowers, and Fruits, which have more especially engaged the attention of cultivators. To those who have aided us in our efforts to keep up the character of the work our warmest thanks are due and are hereby tendered.

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